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PASSION FLOWER





APRIL, 1884.

THE PRESENT MONTH is one of great activity in the garden in all parts of the country. Some have already seen many of their crops progress into and beyond their first stages, others have only made partial preparations. With all it is a time of hope, of diligence, of care. At this time especially the judgment and the skill of the gardener are put to many practical tests. The successful plant cultivator, whether farmer or gardener, must be a thinking man, and as such he is prepared for action, not only by his previous training but by his ability to adjust his methods to unusual conditions and emergencies as they may occur. It may be profitable at this time, especially to amateurs, to note some of the operations that will require attention.

Drainage, if it has been neglected, may command attention, though the present is not the most profitable one to engage in the work of making drains, except where open ditches will temporarily relieve the soil, and leave it suitable for a crop. Permanent drainage is the foundation of good culture and profitable crops.

Manure is essential for most soils for the full development of crops, and oftentimes the entire profit depends upon it. The main source of supply is usually the stable and the cattle sheds, but if this is not sufficient, it must be procured elsewhere, and the question what to get is

usually even more difficult to decide than the one in relation to the supply. And this question of plant food is one of the most difficult problems the cultivator has perennially to solve; its factors are, for the most part, unknown quantities. A knowledge of the productions in the past of any given area, together with that of the demands that will be made by the proposed crop, as shown by reliable experiments, are the elements upon which the calculation is to be based. Experience, observation and judgment must combine to reach proper and valuable conclusions. Guano, bone-meal, manufactured fertilizers under the name of superphosphates, and wood ashes are the principal substances that must supplement the store of stable manure.

One point cannot be kept too prominently in view, which is, getting crops started in good season; a failure in this often results in loss, when otherwise a profit would be shown.

But, leaving the general consideration of the subject, let us glance at the work in the garden. Such bulbs and tubers as Cannas, Caladiums, Dahlias, Tuberose, and others that are to be planted out, and yet require a long season, will now be started in the house in preparation for their summer quarters. Many kinds of flower seeds will be started in the house or in frames, or in



lovely flowers less known than they should be in American gardens. How many poetry lovers know how a true Daisy looks, or have any real idea of the "gowans folded in the dew," or the "wee, modest, crimson tippit flower" in its blushing innocence. Out of a hundred educated people climbing the slopes of Manitou, two years ago, hardly one recognized the Mountain Daisy flushing Colorado hillsides, clear pink and crimson tinged blossoms that look as if the souls of happy children passed into them after death. One of our party knew the wild Pentstemons in their native home, the canyons of the Rockies, and another recognized the sweetest white flower of the grand canyon for a variety of white Hellebore, cousin of the Christmas Rose, there being just two more who knew a Christmas Rose by name. The fault of our modern education is a disgraceful ignorance of common things. Not one in five hundred knows the name of wild flowers by the road, or the variety of a Pippin, or of an Oak. We scarcely know the sweetest flowers of song and story by sight, and not at all in our gardens. To be perfect, a flower wants color, scent and associations, the perfume of memories that lasts for generations.

To begin at the easiest cultivated plants, and those from which the readiest return may be expected, how many gardens are furnished with hardy bulbs as one would wish? Hardly any plants are cheaper than bulbs, last so long, or need so little care. A dozen vernal and autumnal Crocuses, which cost twenty cents, will give such groups of white, purple and gold as are the livery of spring's own household, and they have the advantage of being planted in the grass, where they bloom the fairest against its green, and are out of the way before it must be cut, leaving room in the crowded beds and borders where every inch of space will be needed. Then, Tulips are not common in small gardens. I cannot remember more than three persons in our town who had ever one in their borders. I live in hope that the mania for decorative work may yield to a taste for flowers, and the money spent in olive plush and filoselle may, part of it, go to buying more liberally of good plants and that spring flowers may blow by the dozen where the grass looks lonesome now for

want of them. In the house or garden one of the early delights is the opening of the Tulips—Cottage Maiden, in pink and white, with delicious breath, Cramoisie in royal crimson, Candor, Purple Brown, Duke of York and Prince of Austria, royal names for right royal flowers. All people who don't have Tulips, say they are out of bloom too soon to pay for planting, but two dozen bulbs judiciously chosen will give brilliant blooming from the first of March in the house, and April in the garden, till the first week in June. Once supplied with bulbs, your garden never runs out; but in two or three seasons counts its Hyacinths, Crocuses and Tulips by scores, with none of the trouble of nursing delicate seedlings every year. All they require is a nest of sand in a bed of good light soil, warm with plenty of sand, light with fibrous wood-mold and dead leaves falling to powder, enriched with scrapings from the cow-yard after the loads of dressing have been hauled away. For your Crocus, drive a thick, sharp stake six inches or more into the lawn at intervals of a foot, leaving holes in which you should pour two inches of sand, then drop in the bulb and fill the hole with the soil described above, adding a little coarse manure or leaves for autumn cover.

A flower which deserves well of our gardens is the Anemone, not merely the frail Hepatica we know by the name, but that large, brightly colored, hardy family of flowers most refined and graceful with all their brilliant coloring—the great Hepatica, from the sides of the Alps, growing a foot high, with sky-blue flowers the size of a Daisy. Anemone blanda loves the morning sun and rocky banks, where its deep sky-blue flowers mat the ground. A. coronaria, the Poppy Anemone, is beloved of florist and careless eye alike, for its splendid variety of scarlet, purple, violet and white flowers, the size and shape of a Crowfoot Geranium, or large Buttercup. But the two Anemones I would see in every garden are the brilliant, large, single French Anemone, of the Poppy kind, and A. fulgens, or Scarlet Windflower. Of the latter, Mr. VILMORIN, who has grown it largely, says, "No hardy spring flower with which I am acquainted can compete with it as regards brilliancy and color, which when lit up by the sunshine becomes per-



fectly dazzling." The Poppy Anemone is a brave flower, like a semi-double silken Poppy, in blue, crimson, mauve, scarlet and peach, not over fifteen inches high, the blossoms lasting long when cut early, and though most persons declare them without fragrance, others will recall the delicate, fresh scent which a bunch of Hepaticas carry with them as if they purified the air on their own account. Then, what garden in this country, not belonging to a florist, shows plenty of the sweet-scented English flowers, the Stocks, in their rich reserved and blended tints, a bed of which offers the finest study of combined colors a painter will find in any blossom. The Wallflowers, gold, crimson, maroon and black, richer than the best Nasturtiums in color, with the added richness of an incomparable scent, a plant that loves rough, gritty soil and the full blaze of the sun; and in this country we cannot have too many plants that bear the sun. The Perennial Sweet Pea should have a place in every garden, where it will root and grow year after year without much care. Edgings of fine white flowers for the grass, like snow wreaths sifted there, call for the Sweet Alyssum and Candytuft, but when you sow the latter, let it be the evergreen perennial sort. *Iberis sempervirens*, which keeps its dark green tufts all winter and blooms like late snow for months, through April, May and June, and by all means get the fragrant kind if you can. The Primrose, Lily of the Valley, Daisy, English Violet, Sweet Brier and Carnations ought to be at home in every flower border. But are they? Who has plenty of Lemon Verbena, *Cedronella*, Rose Geranium, Lavender and Rosemary, not to pick a leaf now and then, but to cut and come again, and keep the house sweet with them? I never saw one garden yet with half enough of these for health or delight. Why not, in summer, have a show of Asters, Chrysanthemums, Zinnias, Gaillardias, brave Sunflowers, Lobelias, Salvias, Scabiosas, Campanulas, Foxgloves, Pyrethrums and red Valerian, with the five hundred other good palette flowers so excellent in habit and color that we must forgive the want of scent in some of them for their hues. You might as well have these as be limited to the scared Daffodil, red Geranium, Dusty Miller and dwindling Pansy

bed, which are the utmost gardening in many places. Pansies and Verbenas deserve better treatment than they get, and are capable of more superb effects than growers dream of.—SUSAN POWER.

#### COLORADO SPRING FLOWERS.

What fate hath placed thee 'neath our Alpine moons,  
Whose pale, cold splendors mock thy warm desire?"

—MRS. HILTON.

The western traveler is familiar, often unpleasantly so, with the common arrow-



MOUNTAIN CACTUS.

tongue Cactus of the plains; but the Mountain Cacti do not often meet the eyes of the pleasure seeker, because their season of bloom is brief and early. On



ANEMONE.

the barest and bleakest hilltops, before the frost is off the valley, you will find these greenish globes crowned with circlets of rose-scented flowers, ranging in color from the deepest orange-crimson to



the palest pink. Look closely, and we see how nature has guarded them. Fleshy spikes grow out round the main ball, each one carrying a perfect plate of



STAR LILY.

radiating spine. These make so close a network that when snow falls it lodges upon them, and about an inch of dead air protects the plant from cold. This Cactus is peeled and eaten in the mountains;



LARGE YELLOW PEA.

I have tried it, but I can't say I found it of much delicacy. It is said to have been used medicinally for heart disease, which complaint, says the pioneer, gravely, "is very common here, but rarely fatal in the

case of young ladies." It will finish blooming if transplanted, but usually dies within a year.

The Anemone, which opens at the same time, late March or early April, has been identified as a close relative of the Pasque-flower, *A. pulsatilla*, of Europe; it is NUTTALL'S variety of *A. patens*. Cultivation, it is said, alters and deepens the color of the foreign flower, but as my plants, though flourishing, refused to bloom, I do not know whether the hardy American will be improved by garden treatment. The Anemone, like the Columbine, suffers the honor of being much painted by Denver ladies, who always place it among green grasses. It comes out leafless, and before a blade of grass is visible near it. Stalks and flowers are



CLAYTONIA.

covered with down; country people call them "fairy velvets." Here the exterior of the large bell is deep purple, the expanded flower pale, nearly white, with a mass of golden stamens in the center. Near the Snowy Range, at Georgetown, the color is red, but I suppose not "the red Anemone," of TENNYSON.

The Star Lily, waxen white and golden hearted, belongs to plain and mountain. It is the first flower I remember finding when, as a child, I played under the Lion's Head, on Table Mountain, in the old capital of Colorado. In the spring of 1867, I picked it at North Platte, in Nebraska, then the terminus of the Union Pacific, while we were waiting for great, broad-tired wagons to ford us over to the coach on the other side. It reminded me that I was again "out west." I have



seen it trampled by the grazing mules of the freighters' camps, and gathered by Mexican nuns to place before the statue of their May Queen. It always seems to me a part of border life.

The large, yellow Pea is called poisonous; of its blossoms the Indians make a dye. It abounds near streams, where it makes a brilliant show.



YELLOW VIOLET.

The Spring Beauty, *Claytonia*, spreads low pink and white masses through the leafless bushes of the foot-hills. Single plants have been found flowering in February. Its little tubers are eaten by Indians. Transplants and grows well.

Yellow Violets are generally distributed from this region to California.—MARION MUIR.

#### NANTUCKET IN SUMMER.

Nantucket was discovered in the year 1602 by BARTHOLOMEW GOSNOLD, says history; we discovered it in the year 188-, and having accomplished this praiseworthy act, prepared to settle down on that particular part of the island known as Wauwinet, with the two-fold purpose of enjoying ourselves for a few weeks, and of "chasing the delusive phantom," health, which had so long eluded our grasp. Leaving the little yacht, *Lillian*, we enter one of the Nantucket wagons and are driven over to the house where we are to pass the night, as the dwelling which we are to occupy during our sojourn is not ready. Climbing down from our perch, we go our various ways, and seeing the shore near I wander down through the briers and bushes, and find myself on the edge of the cliff, listening for the first time in my life to the "sullen

roar" and hiss of the waves of Old Ocean as they break on the shore below. There is a wonderful fascination in watching the "ever changing face" of the sea, and looking at it you could almost imagine it an animate being, a living embodiment of malignity and relentless power.

Gazing out upon the great expanse of water and watching the waves, as one after another they break at your feet and rush up on the sand, as if they would grasp you and drag you down into the very depths, you begin to realize what a puny, insignificant creature you are, a mere speck in the great universe of nature, only an atom when matched with this mighty force seething and tossing before you. The small member of the family approaches in a great state of trepidation, and is with great difficulty induced to get within sight of the waves, the roar of which evidently terrifies her greatly, and we turn our footsteps back to the house where her fears are soon forgotten in "the land of dreams." The rest of us gather on the broad veranda and chat, while old Sankoty in the distance flashes out his warning light over the sea, and our first day in Nantucket is ended.

We sleep the sleep of the "just arrived," and are whisked off again the next morning along the sandy road, past the swamp where the *Azalea* still lingers, and the Grape vines run riot over the bushes with which the marsh is filled, until in a short time we are at the Wauwinet House, where we breakfast. We are not to occupy anything so insignificant as the fishermen's cottages, which we see about us, but are to have a more pretentious building, which once did duty as a hotel. This house somewhat resembles the Wauwinet, and possesses the peculiarity which is at once the charm and the atrocity of these buildings. The charm lies in the fact of being able to throw open a large portion of the lower story to the cool sea breeze, thereby giving an uninterrupted view of the harbor and surrounding country; the atrocity lies in the effort required to perform this ceremony. The front of the lower story consists almost entirely of two large wooden shutters which extend from the floor nearly, or quite, to the ceiling, where they are attached by hinges; the sides, as far as the veranda extends, are composed of



similar shutters arranged in like manner. By raising them up under the roof of the veranda and securing them in place by wooden pins, a great part of the lower portion of the house is left open. As the size of these shutters is equalled by their weight, it is easily understood that lifting them into position is an operation which requires a great deal of tact and an equal amount of strength. The feat is accomplished with the aid of a post or prop, on which the victim rests the shutter after he has lifted it as far as human nature will allow, or while adjusting the pins which support it. The ceremony of raising these shutters is one which is capable of much variation and amplification, for instance, you can make a rush at one, and by giving it a violent push may be able to get it up far enough to put the prop under it, or you may be obliged to pick yourself up from the middle of the room, or wherever fate or the shutter has located you; or, on the principle that "misery loves company," you can invite a friend to put the prop under the shutter when you raise it, and this gives you an opportunity of "killing two birds with one stone," either by means of the prop slipping, or by any awkwardness or delay in adjusting it on the part of your assistant, or by any other little accident which you can invent to enliven the occasion. After the shutters are up you are rewarded for your exertions by the beauty of the view thus obtained.

Looking down the harbor, the town of Nantucket appears in the distance, and there you can see the little steamer, *Island Belle*, and the yacht, *Lillian*, going to and fro between our place of abode and the quaint old town, and if the day should be fair, you may perceive various other sail boats tacking up the harbor, or anchored at a little landing a few rods distant, while their freight of pleasure seekers is scattered about on the shore or gathered under the hospitable wings of the *Wauwinet House*.

The pleasant weather brings many from town, as the sail up the harbor is a delightful one; and when the regular boats arrive there is a general trooping forth of "young men and maidens," middle aged people and children, who usually charge for the open sea, which lies a few rods in the rear of our dwelling. The shore at this place is a most uninteresting

strip of sand, and looks the very picture of dreariness and desolation; however, when a boat-load of people arrives the settled visitors seem to think they must go over to the sea, as if in duty bound, and file past in long lines on their pilgrimage to this sandy Mecca, and having faithfully discharged this important duty, seem to consider that they are at liberty to enjoy themselves as seemeth good in their sight. After four o'clock in the afternoon *Wauwinet* presents a rather deserted appearance, except as a few visitors in carriages or private yachts come and add animation to the scene.

Although there is a deal of sameness about the island of Nantucket so far as we explored it, from the fact that it is nearly level, has few trees of any size and has the sandy soil of eastern Massachusetts, yet there is much to divert the visitor. That never failing object of interest, the sea, is always near you, the swamps are filled and the fields dotted with myriads of plants, many of which are very beautiful, the ponds or lakes are numerous, the shore of the harbor is strewn with a variety of shells, and delicate mosses are floating in its waters. All these, with many other attractions which the island possesses, cannot fail to afford unqualified pleasure to those who delight in the beautiful in nature. About two miles from Nantucket, close by the sea shore, is the little fishing hamlet of *Quidnit*, and just at the foot of the slope on which the village is perched lies *Sachacha pond*, which is nearly large enough to be dignified with the name of lake, and though it is only divided from the sea by a narrow strip of sand is so fresh that perch abound in it. Hearing of this pond and the fish to be obtained there, we held a council and came to the conclusion that we will make a pedestrian excursion to the place and endeavor to catch some of the perch; accordingly we set forth one pleasant morning, and after an interesting walk reached it, and finding a fisherman to take us out, spent a day in perch fishing, and towards evening returned, finding on our way many fine specimens of flowers, most of which seemed to be a little farther in the marsh or bushes than was perhaps prudent for us to venture, so we contented ourselves by admiring their beauty at a distance.—MRS. H. R. L., *Hoosic, N. Y.*

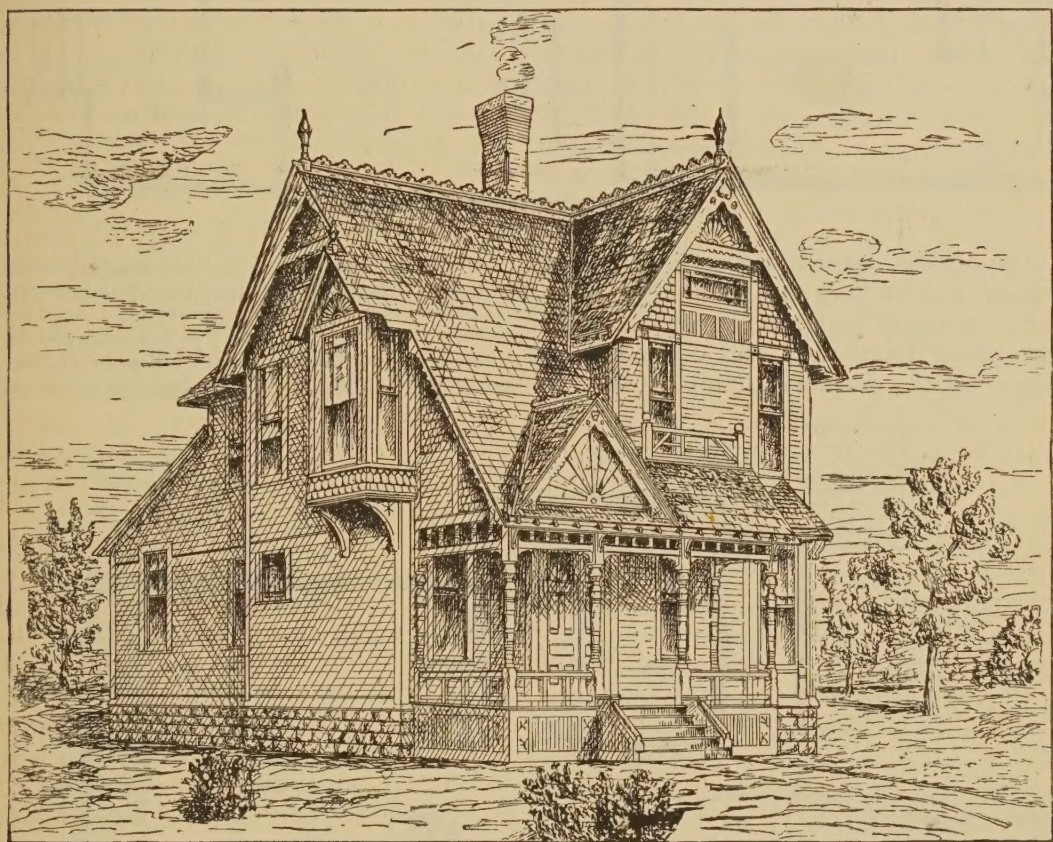


### RAISING RADISHES.

The following is my method of raising Radishes, and which I find to be the best way. I know that most of my neighbors have much difficulty in getting good Radishes, and formerly I also did; they were tough, stringy and wormy, utterly unfit to eat. Now I never fail to get them sound and crisp. Radishes require to be grown quickly in order to have them tender. I select a piece of ground in a corner of the garden for this crop, and keep it specially for that purpose. I use unleached wood ashes, putting them on the

### A CONVENIENT COTTAGE.

This design is somewhat peculiar, and yet original. It differs from ordinary cottages in its interior arrangement. The economy of room with convenience of arrangement, has been well considered, as a careful examination of the plans will show. It has been usual to have the entrance hall simply for an entrance, with a flight of open stairs. Expensive to build and also to furnish, the whole occupying a large space and comparatively waste. In this design there is an entrance vestibule, from which is a fine reception hall,

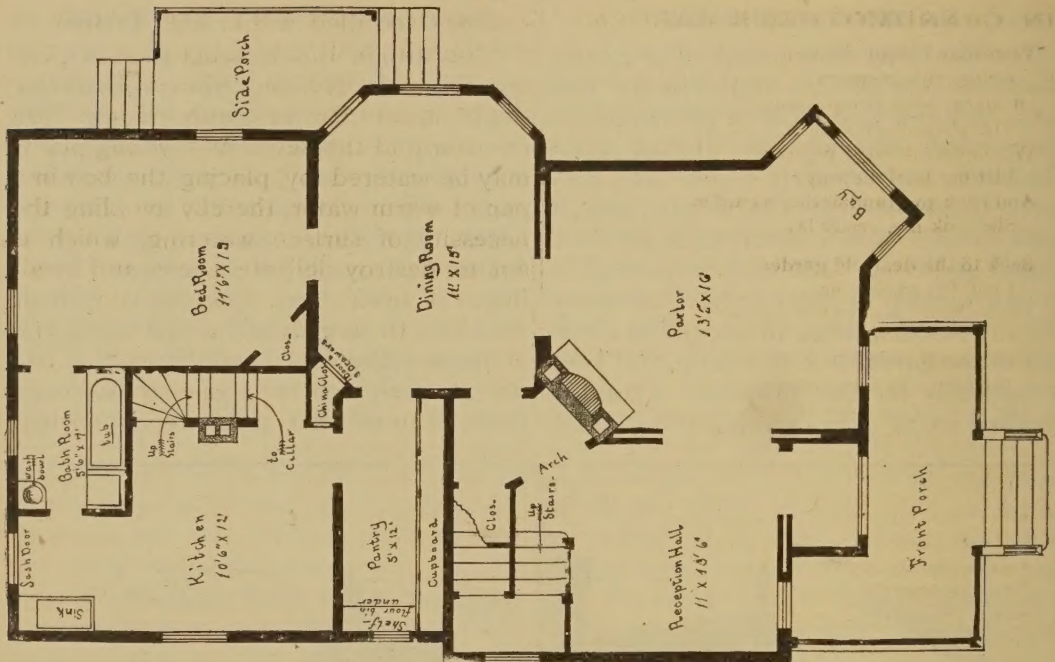


ground two or more inches in depth, and dig them well under to thoroughly mix them with the soil, which is sandy; when it is thoroughly worked I sow the seed, first marking rows with the back of a rake, from sixteen to eighteen inches apart. After sowing, the seed is covered with the teeth of the rake. I add ashes to the bed every year, and find that it keeps them free from the worms. No manure is required; splendid Radishes are raised in this way. I never knew this process of raising Radishes to be recommended, and you are at liberty to publish it.—F. C., *London, Ont.*

with a flight of open base stairs at the further side of the hall, helping to furnish it in an inexpensive manner, yet being artistic in effect. The upper part of the stairs is enclosed by a partition and door at the landing, making a two-fold economy, that of construction and heating, since this hall can be heated as readily as any room. This reception hall and parlor can be thrown together *en suite* by shifting doors, making the whole front of the house pleasant and available.

The exterior is prepossessing, being semi-colonial in style. The house is a general favorite by all who have seen it since

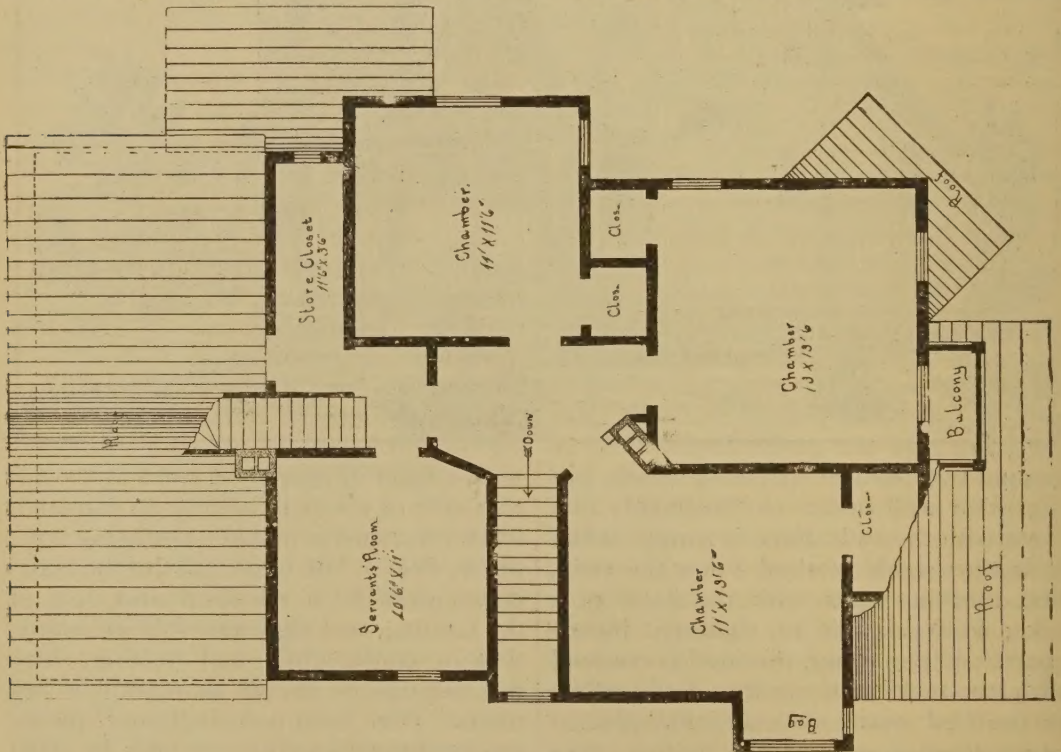




FIRST FLOOR.

its completion, considering the cost. This cottage was built in the summer of 1883, under contract, in Grand Rapids, Mich., with stone foundation and cellar under entire house, without plumbing, for a

In reducing these floor plans by photography from the original drawings, the figures have been rendered somewhat indistinct, and, therefore, the dimensions are here re-stated. The reception hall is 11 feet by 13 feet 6 inches; parlor 13 feet 6 inches by 16 feet; dining room 11 feet by 15 feet; pantry 5 feet by 12



SECOND FLOOR.

little less than \$2,000. I hope your readers may find, by careful examination, many good and beneficial points in this design, and any further information concerning it will be cheerfully given.—D. S. HOPKINS, Archt., *Grand Rapids, Mich.*

feet; kitchen 10 feet 6 inches by 12 feet; bed room 11 feet 6 inches by 15 feet; bath room 5 feet 6 inches by 7 feet. On the second floor the chambers are respectively, 11 feet by 13 feet 6 inches, 13 feet by 13 feet 6 inches, 11 feet by 11 feet 6 inches; store closet 11 feet 6 inches by 3 feet 6 inches, and servant's room 10 feet 6 inches by 11 feet.



## IN GRANDMOTHER'S GARDEN.

Yesterday I went roaming,  
 Along with memory;  
 Of all my boon companions  
 The pleasantest is she;  
 Whenever we walk together,  
 I let her lead the way,  
 And back to grandmother's garden  
 She took me, yesterday.

Back to the dear old garden  
 I had left so long ago,  
 Whose flowers seem the sweetest  
 Of all the flowers that blow—  
 Lilac and Rose and Lily,  
 Woodbine and Eglantere,  
 The dear, old-fashioned flowers  
 That grandmother planted there.

They nodded a cheery welcome,  
 They reached out friendly hands,  
 And spoke in the wordless language  
 He who loves them understands;  
 And so we whispered together  
 Of the dear days that had fled,  
 As old friends do at meeting,  
 Of the living and the dead.

They told me of grandmother's going  
 Away from the dear, old home,  
 To the land she used to dream of  
 When her thoughts would heavenward roam;  
 There were her dear ones waiting,  
 Where the fadeless gardens are,  
 And with love to bridge the distance,  
 God's world could not seem far.

They told me how they had missed her,  
 And how, each year, they gave  
 Their fairest and sweetest flowers,  
 To grow about her grave.  
 True to their olden friendship,  
 The flowers have not forgot,  
 And grandmother thinks, in heaven,  
 I know, of this dear old spot.

From grandmother's dear old garden  
 I brought a fragrant store—  
 Lilacs and Damask Roses,  
 From the bushes by the door,  
 Pinks, and a faded Lily,  
 Whose youth, like mine, had fled,  
 And Rosemary, for remembrance  
 Of the days and the friends that are dead.

—EBEN E. REXFORD.

## THE CHINESE PRIMROSE.

Many people who look longingly at the Primroses with their wealth of various tinted flowers in the window of the professional florist, and are deterred by the cost from purchasing, do not know that they can make a whole window beautiful through the heart of winter, by the outlay of a few cents in purchasing a packet of Primrose seed, and by the little care and patience necessary in raising them. Very little preparation is needed to raise these satisfactory flowers. A packet of mixed seed of single varieties, a small,

shallow box filled within half an inch of the top with leaf-mold, and a pane of glass are the principal requisites. Perforate the bottom of the box with a coarse awl, in order that the seeds and young plants may be watered by placing the box in a pan of warm water, thereby avoiding the necessity of surface watering, which is apt to destroy delicate seeds and seedlings. I prefer leaf-mold to any other soil for growing Primrose, Gloxinia and Tuberous Begonia seed, from the fact that it is so soft and mellow that the smallest roots can penetrate it without difficulty, and yet it is not so porous as to allow the fine seeds to wash deep down in it, thereby destroying them, and it has the additional advantage of retaining moisture for a considerable length of time, thus obviating the frequent waterings which are so dangerous to the germinating seed if not done with great care. Sow the seed in March, April or first of May, for plants to be grown in the atmosphere of a common living room. After putting the mold in the box, press it down firmly and smoothly, set the box in water until the mold is thoroughly saturated, let it stand a few minutes to allow all superfluous water to drain off, then sprinkle the seed evenly on the surface and sift over just enough fine earth to nicely cover them, place the glass over the box and set it in a warm place, that the seed may germinate readily without rotting. Watch carefully, and give air, that no signs of mold may appear, as both the Primrose plant and the seed are impatient of too much water. Those who have not a greenhouse or hot-bed will find the reservoir of the kitchen stove a substitute not to be despised for producing bottom heat, but a piece of board, or some other nonconductor, should be placed under the box to guard against too high a temperature. After the little plants appear, remove them to the window, and take off the pane of glass from the box that they may not become drawn. After a few of the rough leaves come, transplant into small pots containing mellow earth, shifting into larger ones as the plants increase in size. Take care to set the plants a little deeper each time, in order to prevent them from lopping over and looking as if they were trying to crawl out of the pot, as the Primrose is very apt to have that appearance unless



properly attended to. Keep them in a cool place during the summer, and in autumn place them where they are to remain during the winter. Be careful not to over water. There is little danger, unless one be very enthusiastic in attending to his plants, of watering too often if the Primroses are in porous, unglazed pots, when kept in the dry air of the dwelling house, but with the glazed pots, which are usually poorly drained, it is different, and a superabundance of water often results in the loss of fine plants.

There is a great deal of satisfaction in raising flowers from the seed, especially if there is a little difficulty in the matter, for we have the pleasure of knowing that we have achieved a success, and have an honest pride in the fact. The plants, too, are doubly your own, for they owe their existence to your care and skill, and are endeared to you by this thought. To those who find it necessary to economize in their expenses they are still more pleasing, because they can enjoy their perfume and beauty undisturbed by the haunting idea that they have cost a sum which they could ill afford to spend.—H. R. L.

#### NEW YORK HORTICULTURAL.

With the advance of spring, the tables of this society show a decided increase in the number as well as in the variety and character of the exhibits, and notwithstanding the day appointed for the March meeting proved to be bitter cold, rendering it necessary for exhibitors to take every precaution to ensure the safety of their plants, yet when the doors were opened four long, well-filled tables awaited the inspection of admiring visitors. In the professional division two large collections of cut flowers were shown, one by GEO. SAVAGE, gardener to GEO. SUCH, South Amboy, N. J., the other by THOS. ASCOTT, of Flatbush, L. I. Mr. SAVAGE's collection was considered by all to be one of the finest ever placed before the society, the flowers being tastily arranged, and each vase correctly and neatly labelled. This collection embraced excellent vases of choice Orchid blooms, conspicuous among them being a vase of *Dendrobium Wardianum*, *Amaryllis*, *Azaleas*, *Camellias*, *Allamandas*; and a number of choice stove and greenhouse shrubs were notic-

able features in this collection. In Mr. ASCOTT's collection were excellent vases of *Fuchsia speciosa*, *Spiræa Japonica*, *Begonia incarnata*, *Bouvardia incarnata* and *Hyacinths* of sorts. The first premium for the best single specimen of Orchid was awarded to GEO. SAVAGE, for *Dendrobium Wardianum* grown in a six-inch pot; this specimen with its sixteen trusses of fourteen flowers attracted the admiration of all. Mr. SAVAGE also received the first premiums for the best six and the best three Orchids. These collections were composed of *Dendrobium macrophyllum* with eighteen trusses of fourteen flowers each; *D. thyrsiflorum* with three spikes of thirty flowers each; *D. chrysotoxum* with six spikes of thirty flowers each; *Lycaste Skinneri*, *Dendrobium glumaceum*, *Dendrobium Wardianum*, *Cattleya Warneri*, *Dendrobiums*, *Boxalli*, and *nobile*. Mr. I. BUCHANAN, of New York city, received the second premiums, his six varieties being *Ærides odoratum*, *Cattleya speciosissima*, *Oncidium Cavendishianum*, *Phalænopsis Schillerianum* and *Vanda cœrulea*. It is to be regretted that the remainder of these plants had no labels attached. Some fine sprays of *Acacia pubescens* were exhibited by HENRY SACKERDORF, and a grand vase of La France Roses by McDONALD & HANFT. W. C. WILSON again exhibited six large pots of Lily of the Valley and twelve pots of Early Tulips. ED. SMYTHE showed eighteen pots of *Hyacinths* well grown, the individual flowers being large and well colored. HALLOCK & THORPE, Queens, L. I., had six very distinct varieties of Carnations, viz., Victory, Jeannette, Wm. Hamilton, Rosalind, Mrs. A. Rolker and Cymbeline. WOOLSON & Co., Passaic, N. J., had a choice group of herbaceous perennial plants; among the most noticeable of these were the beautiful *Tulipa Gregii* and the Glory of the Snow, *Chionodoxa luciliæ*. This firm also exhibited a grand collection of hardy hybrid Daffodils in pots; this collection, one of the finest in the world, was composed of one hundred and sixteen varieties, all in full flower and correctly and neatly named. Roses were shown in great profusion and perfection, but owing to the closeness with which the various exhibits were placed it was impossible to obtain their owners' names with any degree of



accuracy. Among the exhibitors' cards, however, we noticed the names of HENRY SACKERDORF, WM. GAY, JOHN HENDERSON and ERNEST ASMUS. The quality of the Roses was excellent, and excellent vases of Cornelia Cook, Niphetos, Catharine Mermet, Douglas, Bon Silene and Gen. Jacqueminot were especially noticeable.

In the amateurs' division another grand display of cut flowers of Orchids was made by THOS. EMERSON, gardener to W. B. DINSMORE, Staatsburg, N. Y. Among them grand spikes of *Bletia Tankervillea* and *Phalænopsis Schilleriana* are deserving more than a passing mention. Three displays of cut flowers were made in this division by JOHN SMITH, gardener to JNO. B. COLGATE, Orange, N. J., GEO. LUCAS, gardener to S. L. M. BARLOW, Glen Cove, L. I., and CHAS. E. PARNELL, gardener to W. D. F. MANICE, Queens, L. I. In Mr. SMITH's exhibit were nice vases of *Bletia Tankervillea*, *Allamanda Schottii*, *Polygala grandiflora*, *Begonia odorata* and *B. subpeltata nigricans*, *Abutilons* and *Geraniums* of sorts, and some excellent Roses. Mr. LUCAS exhibited nice vases of *Strelitzia regina*, *Lapageria rosea*, *Polygala grandiflora*, *Inga pulcherrima*, *Brugmansia Knightii*, *Amaryllis Johnsonii* and other equally rare plants, and Mr. PARNELL excellent vases of *Bignonia venusta*, *Laurestinus*, *Hebeclinium ianthinum*, *Dalechampia Roeziana rosea*, *Acacia pubescens*, *Fuchsia speciosa*, *Begonias*, *Geraniums* and *Carnations* of sorts; Mr. SMITH also exhibited three *Cyclamen Persicums*, each plant containing over seventy-five flowers.

JOHN FARRELL, gardener to WM. BURR, Orange, N. J., exhibited a well grown plant of *Begonia metallica*, also a fine specimen of the beautiful *Davallia bullata*.

JOHN EGAN, gardener to H. B. HYDE, Bayshore, L. I., showed twelve *Camellias* and a fine vase of *Mignonette*.

WM. H. CLEMENT, gardener to Mrs. M. J. MORGAN, New York, had a choice collection of Orchids tastefully interspersed with choice foliage plants.

Deserving of special mention in this exhibit were fine specimens of *Antirrhinum Andreanum*, *Asparagus plumosus*, *Cypripedium barbatum*, *C. barbatum majus*, and *Odontoglossum crispum*. Violets, Pansies and other numerous

single vases of flowers in variety, with dishes of Mushrooms and Oranges, also contributed to the interest of this successful meeting.—VISITOR.

#### MELONS AND CUCUMBERS.

The greatest triumphs are attained where difficulties most abound. They bring out the full powers of man. English gardeners accomplish wonders and are excelled only by the Scotch, whose climate is still darker and chillier. Melons, Cucumbers, &c., can only be grown there with the aid of glass and artificial heat, and the ways of Melons are therefore watched with closer observation than we care to give, here, where we can let the vines ramble at will in wide fields. They fill their frames with vines and fruit by stopping, pinching the end of the first shoot, and later of the second shoots, which are guided by pegs, so as to evenly fill the frame. These checks soon induce numbers of flowers, and the fruits from the female flowers are thinned when as large as Walnuts, leaving only four or five on each plant. Much warm water is poured over the leaves and all, through the rose of a watering pot, early in the evening, before closing the frames; but, as the fruits approach ripening, only light sprinkling is given to keep the leaves green and healthy. In hot, sunny weather this is given mornings and evenings. Cucumbers delight similarly in warm, moist air.—W., Tyrone, Pennsylvania.

#### THE RED ROMANITE APPLE.

The allusions to the seedlings of the above Apple being hardy in the north reminds me of its exemption from the borer. In an orchard of about one hundred trees, there was one whole row of this variety, about twelve trees, all in a flourishing condition, and from which I picked from three to five bushels of fruit each. The selection of varieties was a good one, and in the other rows two-thirds of all the trees were ruined by the borers. On examining the Romanite trees I found but very little work of the borer. Considering its productiveness, its long keeping qualities and fine eating in the spring, I wonder that it is not more extensively planted. There is a peculiar fragrance about it that is very pleasant.—S. MILLER.





### ARRANGING CUT FLOWERS.

A writer in the *Journal of Horticulture* says about cut flowers: "Study simplicity in arrangement. The more simple the arrangement of flowers the easier it is for a gardener to insure a supply. I do not make it a rule, but generally I do not mix different sorts of flowers together. It is also necessary to study the kind of glasses in selecting flowers to fill them. In large glasses or vases a cluster of small flowers is out of place, though on the other hand it does not always follow that only the smaller flowers should be used to fill small glasses. If it is desired to display a *Rhododendron* truss, an *Amaryllis* or a *Cattleya* to the best advantage, select a smallish glass which the individual will fill, and do not try to improve really fine flowers of that sort by employing other foliage. Even a spray of *Maidenhair* will detract from the beauty of such flowers.

"Another point. Do not mix the finer flowers with commoner sorts. Keep *Eucharis* and white *Lapagerias* to associate with *Orchids*, and with these add only the finest Ferns—*Adiantum Farleyense* or *A. scutum*, or the dark green *Asparagus plumosus*. With the commoner flowers it is not by any means an advantage to use Ferns alone for a setting. For large vases, foliage of *Rex Begonias*, *Callas*, *Hollyhocks*, *Ivy Pelargoniums*, &c., are all extremely useful and suitable. Leafage is in its way just as much admired as flowers, and there is no reason why gardeners should confine themselves to a few Ferns. As a rule, let every flower stand clear of its neighbor. We may make an exception to this rule, and show a glowing bunch of *Pelargoniums* on a setting of their own foliage, but generally lightness is to be commended. Speaking of the latter reminds me that it is bad

taste to mix dark-colored varieties and those of a rosy shade together. Keep the latter to mix with light forms of *Aida* or other flowers. These help show off the beauty of each other, but if mixed with the crimson kinds the effect of both is spoiled.

"Much that has been written about vase furnishing applies with equal force to table decorations. There are three simple modes of decoration which may either be separately employed or conjointly. For small tables cut flowers are most suitable, and these may be either arranged in small glasses or laid on the cloth. Tables to dine say from eight to a dozen and upwards are generally decorated with plants as well as flowers. The simplest way of using plants is to stand them in vessels of plate or some kind of earthenware, or to stand them on the table amid a bank of foliage and flowers. In the latter case the fewer flowers employed the better. Nothing surpasses the common *Selaginella Kraussiana* as a groundwork, and if it is healthy and well grown no Ferns will be required. As a rule half a dozen large blossoms round this will be sufficient. White, pink or crimson flowers are most suitable. *Chrysanthemums*, *Eucharises*, *Pelargoniums* and *Camellias* are very suitable for this purpose, but they must be good. Small plants are sometimes placed round the table, crimson *Tulips*, or three sprays of *Lily of the Valley*, or three plants of *Rivinia humilis* are well adapted for this purpose. These require no flowers amongst the moss. If foliage plants are used, then three *Carnations* round each, or as many *Bouvardias* or double *Primulas* do well. I much prefer to have all the plants alike. Small glasses filled with flowers are very pretty. Flat glasses should be filled with single trusses of



Pelargoniums backed with a leaf of the same, or a Chrysanthemum, Camellia, or Eucharis. Tall narrow glasses are suitably filled with Lily of the Valley, small Pelargonium trusses, Bouvardias and Dendrobiums."

#### PEAR, BEURRE PERPETUAL.

A correspondent of the *Revue Horticole* describes the Pear, Beurre Perpetual. The term "perpetual" is applied to this variety for the same reason that it is to certain Roses, Strawberries and Raspberries, because they bloom twice in a season. In the case of this variety of Pear, the second blossoming commences very early in June. The flowers appear in groups of three, five, and even eight, at the extremities of the twigs. These second flowers set fruit as well as the first, but their fruit arrives later at maturity, and in general acquires only a medium development, though this does not influence the quality of the flesh. This second flowering constitutes the normal state of the "Beurre Perpetual," and its second fructification frequently supplements the first, when that may have been adverse by reason of unfavorable weather. In a word, if the tree is not of the highest fertility, it produces with regularity a little every year, and that is a property worth taking into account. The fruit is described as of medium size, yellow at maturity, with grayish dots, flesh white, fine grained, very melting, very juicy and very agreeably perfumed. Ripens latter part of September.

The thought is suggested by this peculiar case that other varieties of trees may yet be originated, possessing this property of double flowering, not only Pears, but Apples, Cherries and Plums, and a limited number of these "Perpetuals," in every family garden can stand as reserves in case of the loss of the general crop by an inclement spring.

#### NEW DOUBLE-FLOWERING PLUM.

The same journal describes a new variety of double-flowering, fruit-bearing Plum, which originated on the grounds of SIMON AND LOUIS, at Plantieres-les-Metz. It flowered the first time in 1882. The tree is represented as vigorous and of a fine form. The flowers are semi-double, relatively large, very numerous, often concealing completely the branches,

of a very clear white. Fruit in pairs and unequal, rarely solitary, slightly egg-shaped, of good size, with a well marked suture. Skin violet, plum-colored at maturity; flesh free, succulent, pulpy, sufficiently melting, greenish yellow, sugary and agreeably perfumed. In a word, it is a precious variety, which will take a place among ornamental trees, where it will play a double part, by its flowers and its fruits.

#### GLAZED POTS FOR PLANTS.

The *Journal of Horticulture*, several years since, proved by numerous facts that plants will thrive as well in glazed as in porous pots; confirmatory of this conclusion, a recent writer gives other similar facts. We quote a few paragraphs:

"I do not know of anything connected with plant growing in pots in which a revolution is more called for than the description of pots so generally in use. The common flower-pot is, to begin with, ugly, especially the English made one. It is easily broken, and consequently expensive. When water that is soft and of the best description for plants is used, it soon gets more ugly still and dirty into the bargain. It takes very much labor to keep it clean by scrubbing and washing, and every time the process takes place the confervæ, or slime, is more or less washed on to the surface of the soil, and, in the case of perforated Orchid pots, among the crocks or charcoal and roots, and there it propagates itself and breeds corruption, to say nothing of the breakage of roots in the case of Orchids every time the scrubbing takes place. The roots of a plant must of necessity be subject to chills in it, because when the surface is moist, and it is nearly always so, evaporation is continually going on from its outer surface, and consequently also more water is required for a plant in such a pot.

"For one thing, the partridge-colored glazed pot looks far more pleasing. Any one who will invent a light, imperishable, that is, unbreakable pot, at even double or treble the price of ordinary pots, would, I am certain, confer a benefit on horticulture.

"All the stove plants here, for years, have been grown in glazed pots up to as large sizes as can be made; all the Palms, Ferns, and five-sixths of four large house-



fuls of Orchids, and there are pots in stock into which the other sixth will be put before many weeks. I have come to look on a common pot for all such plants with a 'scunner,' to use a Scotticism, and will not be satisfied till all our house plants are in them.

"Now as to the expense. The glazed pots cost exactly a fourth more than the common pot, but I have now got them made so that they are much stronger, and not so subject to breakage as the old pot, so firm and hard that they ring like a bell. In the end they will come cheaper, especially if the labor of washing and scrubbing is taken into account."

#### FLORAL DECORATIONS.

Ornamental Grasses impart to an arrangement a lightness and a distinctive character which Fern fronds, handsome as they are, fail to give. Moreover, it is difficult to keep up the needful amount of cut Ferns without disfiguring the plants. *Briza maxima* and *gracilis* are two of the best of the Quaking Grasses. We find the former to be especially valuable, and to arrange well with Water Lilies and similar subjects. This sort is also one of the best for cutting and drying for later use. If cut while the deep green is in it, it retains its color better than if left till it has assumed a brownish tinge. *Lagurus ovatus* (the Turk's-head Grass) is one of the most distinct kinds, as well as one of the best for keeping purposes, if treated as just advised in the case of the *Briza*. For bold arrangements in association with large flowers this is an excellent kind.

When those raised from seed are well above the soil it will be well to thin out any kind that has come up too thickly. This will throw more stamina into those that are left, rendering them more durable. The following annuals are all useful associated with Grasses, viz.: *Campanula Lorei* and its white variety, *Catananche cœrulea*, Sweet Sultan (yellow,) *Rhodanthes*, *Linum grandiflorum coccineum*, the Corn Flowers in various colors, dwarf Poppies, single Dahlias, which have a future before them, and last, but not least, *Gypsophila elegans* and its variety, *rosea*. Many more annuals might be named, but these are among the best for decorative arrangements and for using in conjunction with Grasses.—*The Garden*.

#### JOINTING GREENHOUSE PIPES.

The following notes from a correspondent of *The Garden* will be appreciated by many. Like many other new methods, the wonder is that it was not discovered before. "A neighbor, a market gardener, who has a large number of houses, tried Portland cement for making joints in the hot water pipes, and found it equal to joints made with iron filings and much less expensive; as an ordinary workman can make from six to eight joints per hour; in fact, he was so well satisfied with the result, that about five years since he put up a new forcing house two hundred yards long, with top and bottom heat each side, all joints being made with Portland cement. As the pipes are carried into the house they are placed in position on bricks previously arranged. A workman follows and puts into each joint a span cord to prevent the cement from getting inside the pipes, and a second party fills the joint with cement, pressing it in solid with a piece of wood, wiping it round and smoothing it off with a small trowel. So far, these joints have given every satisfaction, not a single mishap having yet occurred."

#### CYCLAMENS FROM SEED.

*The Garden* gives an account of a Cyclamen nursery at Hanwell, England, from which the following is taken: "Cyclamen *Persicum giganteum* raised from seed sown in August and September last in seed pans, and in December pricked off into five-inch pots, twelve plants in a pot, are now (last of February) developing their third and fourth leaves. It is remarkable to what a size seedlings fourteen months old will grow in that time. I saw one plant at Hanwell sixteen months from seed, growing in a six-inch pot, on which could be counted thirty flowers open, and one hundred more in the act of expanding or in unopened bud. I suppose it may be assumed that the small-flowered forms of *C. Persicum* are a thing of the past. The large-flowered forms are taking hold of popular favor, especially so now that the finest form and substance, added to striking color, are seen in combination with enlarged petals. The size of some of the blossoms is truly astonishing; some have petals one and one-fourth inches across and two and one-eighth inches in length."





### TRUSTING STILL.

A few dry leaves were clinging to the bough,  
Where once waved summer's verdure—all was  
drear;

"'Tis like my life," I said, "so cheerless now,  
All, all is gone, which once I held so dear."

Just then I heard a twitter in the trees;  
"The birds have come," I cried in glad surprise,  
And, like a bright scarf wafted on the breeze,  
A flock of Blue birds flew before my eyes.

There with a stir, and love's melodious din,  
With murmurings sweet, and warblings soft and low,  
See them in sheltered nook their nests begin,  
Their breasts, like June blown Roses, all aglow.

They little reck that still the winds are cold,  
The mornings frosty, and the evenings chill;  
That meadows show not yet their green and gold,  
That Daisies dance not on the distant hill.

The hearts within them tell of summer time,  
And with a faith and instinct all their own,  
They wing their way far from the sunny clime,  
Securely trusting to their summer home.

Then straightway conscience chid my lack of trust:  
"Lay thou fair plans and build thereon with love,  
With help of faith a goodly structure must  
In time be reared; Go, and thy courage prove."

So woke my heart again to love and life;  
Hope sang her cheering song with right good will,  
True, patient toil is with fruition rife;  
So, though some days be dark, I'm trusting still.

—DART FAIRTHORNE.

### THE WEATHER AND THE CROPS.

The past winter, in this country, differs from the preceding, especially in one particular, that of great variation in temperature. The winter of 1882-83 was one of uniformly low temperature, with an occasional drop to several degrees below zero. The past winter the changes have been severe and sudden; the zero, and minus zero extremes have been frequent and intense, and the cold waves rushed down into low latitudes where usually they are unknown; but in February we had quite a succession of mild and spring-like days, causing the great floods. Colder weather again followed. Yesterday, and

to-day, March 13, have been milder than usual for the season.

It is not strange that farmers and gardeners should at this time, as they are about to commence spring work, anxiously seek some evidence that will assure them of a more favorable season than the last, when so many crops were profitless, or ruined, by the cold summer. Weather observations allow of no reliable forecasts to be made that can possibly serve as a guide to the planter; he can act in this matter only in accordance with general principles, and cast his bread upon the waters and await the unfolding of the seasons. In regard to making any reliable calculations upon the weather in connection with future crops we have made no advance upon the time of the old Preacher, who said, "He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."

Notwithstanding, observations of the weather are of great interest to every observer of nature, and especially at this time when the meteorological conditions are so marked and peculiar. We have not yet passed the period of the greatest solar disturbances, and some of the most careful observers in this country now trace to them a connection with many of our atmospheric changes. That the causes producing sun-spots generate an immense amount of electricity that affects our atmosphere, is apparently demonstrated, but as yet this subject is little advanced beyond the first steps of investigation. The facts in regard to electric storms in connection with sun-spots that have been noted the past year are world wide; they have been reported from all countries. Is the same cause the prime mover of the cold, arctic waves that occasionally roll down over our whole land?



No answer can be given that is fully satisfactory. In connection with these observations it is well to note that British and European journals report one of the mildest winters upon record, with an even temperature, and last summer was a warmer one than usual there.

#### THE COMMON CLIFF BRAKE.

I send a pressed Fern frond which I would like you to name for me. It is of a light green color, has a woolly root-stock, and when the fronds appear in spring the leaflets are all flat; toward autumn the edges roll back, and are full of Fern dust underneath, as you will see by the one I send you. It grows along the creeks in the solid rock or limestone



PELLÆA ATROPURPUREA.

banks, without any earth, and it is not easy to get a plant out with the roots to it. Those white stone banks, from thirty to forty feet high, or even higher, look very pretty covered with this nice Fern; and on top of the bank are Feather Ferns, and wild Aquilegia, and Virginia Creepers that hang down almost to the water's edge. I planted one of these Ferns in a pot filled with little limestones and a little earth; it grew very well with plenty of watering and in the shade. I found the descriptions and names of the

other Ferns that grow here in those lessons about Ferns you gave us in the MAGAZINE, which I enjoyed very much. The Maidenhair, *Adiantum pedatum*, and Christmas Fern, *Aspidium acrostichoides*, are found here abundantly. The Christmas Fern made my rockery look pretty all winter.

I learn much through your MAGAZINE, and it is getting dearer to me every year, and with it now we get *Good Cheer*, which is also a good paper. I can't understand how you can give this all for one dollar and twenty-five cents.—C. E., Quincy, Ill.

The present illustration is the full size of the specimen received with the above letter. The Fern is *Pellaea atropurpurea*, or Cliff Brake, being the one mentioned in the February number at the close of the article on page 56. The fronds which always grow in the shade in the crevices of limestone rocks, are produced in tufts, and their whole length from root to tip is sometimes as much as twelve inches, and the width from two to four inches, though often the size is not greater than the one here figured, which is perfect, and fruiting on every division. The stipe is a very dark brown, polished, and slightly chaffy at the base, which is probably what is meant to be conveyed in the letter by the expression, "woolly root-stock." The upper pinnæ are always simple and straight, while below they are bifid and trifid. These few notes, with the very vivid description of our correspondent, will enable any one to identify this very interesting little Fern.

#### DESTRUCTIVE KATYDID.

Herewith I send to you a sprig of one of my Quince trees. You perceive there are twenty-four crust-back insects, about the size of Flax seed, of a light slate color. This sprig, only two inches in length, is a sample of many others infested with the same deadly insect. Wherever these insects are allowed to continue for sixty days the spot covered by them becomes barkless and the wood dies. Can you name these insects and tell me how to prevent their reappearance without harming the tree?—S. G. S., Brenham, Texas.

The specimens here described were received and forwarded to WM. SAUNDERS, the well known entomologist and author, from whom a reply was received, from which the following extract is made: "The specimens sent you by your Texan friend are the eggs of the angular-winged Katydid, *Microcentrum retinervis*, described and figured in my book on *Insects Injurious to Fruits*, page 383. The young Katydids, when hatched, are said to feed only upon the surface of the leaf, but probably may devour the young bark also. The only remedy suggested is to



collect the eggs during the winter months and place them in boxes covered with wire gauze until spring. The eggs are frequently infested by parasitic flies; which are a great help in keeping the pests within bounds. By enclosing the eggs under gauze, as described, the parasitic flies may be allowed to escape from



EGGS OF ANGULAR-WINGED KATYDID.

time to time to continue their good work, and the young Katydids can be destroyed, or allowed to perish from starvation. Your correspondent is in error when he speaks of these eggs as 'crust-back insects,' they are nothing but eggs, and can do no harm as long as they remain unhatched."

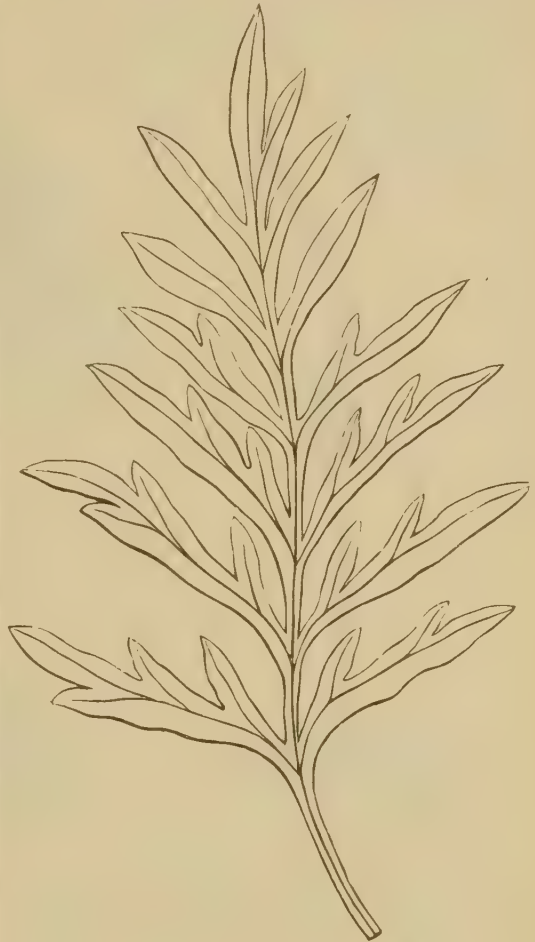
It appears from the valuable work referred to, that this Katydid is particularly destructive to the foliage of the Orange trees, and the means employed to keep it in check are the same as indicated above.

#### LEGEND OF THE ROSE.

"Perhaps, however, the prettiest of all the connections between Roses and innocence is the following quaint legend of the origin of the flower, told by that Mediæval *raconteur*, Sir JOHN MANDEVILLE, in his *Travels* which were written in English in 1356: 'At Bethelheim is the Felde Floridus, that is to seyne, the Felde florisched; for als moche as a fayre mayden was blamed with wrong and slaundered, for whiche cause sche was demed to the Dethe, and to be brent in that place to the whiche she was ladd; and as the Fyre began to bren aboute hire, sche made hire preyeres to oure Lord, that als wissely as sche was not gylty of that Synne, that He wolde helpe hire and make it to be knowen to alle men, of His mercyfulle grace. And when sche hadde thus seyde, sche entered into the Fuyr; and anon was the Fuyr quenched and oute; and the Brondes that weren brennyng becomen red Roseres, and the Brondes that weren not kyndled becomen white Roseres, full of Roses. And these weren the first Roseres and Roses, both white and rede, that evere ony man saughe.'"—G. S. BOULGER, in January *Forestry*.

#### AUSTRALIAN SEEDS.

Some of the Australian seeds you sent me came up nicely. I planted six seeds of *Acacia cyanophylla*, and four of them came, and they are all living. I have one that is two and a half feet in height; it has two leaves like the illustration No. 1 in the February number of the MAGAZINE, and eleven like No. 2 of the same plant. I have two plants of *Grevillea robusta*, the largest one is thirteen inches in height. I enclose one of the leaves of it; some of the other leaves are nearly as long again and somewhat broader. The leaves have a drooping habit, which



LEAF OF GREVILLEA ROBUSTA.

gives the plant a very graceful appearance, and it is very much admired. Another kind did not come up, and as I did not plant all the seeds I shall try again. Does *Grevillea robusta* bloom?—G. L. P., *White Plains, N. Y.*

*Grevillea robusta*, in its native habitats in Australia, is a large tree, attaining a height of eighty to one hundred feet. At maturity the tree blooms, having slender flowers of a mingled-orange yellow and green; it is cultivated for its ornamental appearance, not for the flowers. This species succeeds well in some parts of California, and is highly prized; it will probably flourish in Florida, and about the Gulf of Mexico.



**AMORPHOPHALLUS RIVIERI.**

In the February number S. H. asks about the above long-named aroid, and it is the first time that I have ever seen any inquiry made about it. I have grown this curious plant for years, and last spring had it in bloom; the flower was similar to that of the Dragon Arum, but more striking and grotesque, and with much less of the dreadful perfume of that species. I find that it winters with less trouble than *Caladium esculentum*. Any person interested in strange and rare plants would do well to obtain a bulb, and they will be more than pleased; the tuber throws



AMORPHOPHALLUS RIVIERI—FLOWER.  
AFTER "THE GARDEN."

up a strong, straight stem with one leaf, which has three divisions; the stem is like mohair, and of a most peculiar shade. I hope you will introduce it and give it a place among your list of bulbs; it makes a beautiful specimen plant and is a good companion for *Caladium esculentum*.

I find your MAGAZINE a great medium for those interested in flowers and plants, and also valuable to even those who can find beauty in a well grown vegetable.—M. G. DEWOLFE, *Kentville, Nova Scotia*.

EBEN E. REXFORD, of Shiocton, Wis., would like to hear by letter from any of our readers who has had experience in heating a small plant conservatory with an oil stove.

**FRED. DORNER AND FRED. HEINL.**

When I first saw noticed the above named varieties of *Pelargonium*, I could not think that they would prove in verity plants that would bloom at all seasons as *Geraniums* do. I desired, however, to add them to my collection. Having procured two small plants, I gave them every attention, and was amply rewarded for my trouble. When spring came and my other *Pelargoniums*, of which I have several kinds, were blooming, the new ones were gay with bloom also. But I thought



AMORPHOPHALLUS RIVIERI.  
AFTER "THE GARDEN."

that when the other varieties ceased flowering the new ones would be very likely to follow their example. For a very short time this seemed to be the case, but buds did not long delay their appearance. Crop after crop of beautiful blossoms came, and now I consider the new kinds the most valuable of this royal family, the beautiful Pansy-like flowers appearing from time to time during the year, even to mid-winter.—H., *White Plains, Georgia*.

CULTIVATING VINEYARDS.—Will some of the Grape growers of Central New York kindly state, in full, what is considered good cultivation of vineyards, and what is the common practice among them?



**LARGE SWEET POTATOES.**

Knowing your interest in seeds, plants, &c., I enclose with this a photograph of some extra large Sweet Potatoes, grown here by Mr. E. M. HAMILTON. They are the product of a single Sweet Potato

effect, till, before the end of the walk, I had about a dozen wreaths of various colors and lengths, or till I felt as if I had a fur tippet on, and yet I did not like to take them off for fear of hurting the poor girls' feelings. \* \* \*

In the Queen's Hospital, at Honolulu, \* \* each ward is tastefully decorated with bouquets, many of the convalescent wear wreaths and garlands of flowers, and even those in bed had a few beside them, or in some cases a single spray laid on the coverlet. The effect was bright and cheerful, and it seemed a kind and sensible idea to endeavor to gratify the instinctive love of flowers universally felt by the natives of these and the South Sea Islands."

Japan, also, has a strong belief in flowers; the private device of the Mikado is a Chrysanthemum flower, and that of the Tycoon three Hollyhock leaves, and in any great demonstrations they decorate largely with flowers, more especially Camellias and evergreens.—S. W. V., *Melbourne, Australia.*

**KALMIA LATIFOLIA.**

Not only is this a most gorgeous affair when in bloom, but to witness a hillside dotted full of the trees when the ground is covered with snow and the sun shines brightly on part of the hill, and the rest is in the shadow is something equally grand. I remember once standing on a knoll admiring such a scene, when the mercury was about zero until my ears were about froze. It is, perhaps, the hardest wood we had in Pennsylvania, and I often wondered why it is not used for knife handles, &c. Many of your readers can, perhaps, recall their experience in crawling and twisting through a Laurel thicket in a swamp to get a shot at a grouse.—S. M.

**FRUIT IN ENGLAND.**—Veronica, in the *Garden*, states that a really good dessert Apple of home growth costs from two-pence to sixpence, and a good Pear costs the consumer two or three times as much to procure.



vine, fourteen Potatoes weighing fifty-eight pounds; the largest one weighed eight pounds. They were grown in reddish, gravelly soil, in and among his Lemon and Orange orchard. They were raised by sub-irrigation, and were planted about the last of June, and grew about five months before they were dug. They are known as the Strasborg variety.—W. A. B., *Los Angeles, Cal.*

**FLOWERS IN OCEANICA.**

Lady BRASSEY, in her very fascinating little book, *A Voyage in the Sunbeam*, gives some very pretty descriptions of how highly popular flowers and floral ornamentation is amongst the children of nature who inhabit those islands. She writes, "All the members of the royal family at present in Tahiti, had been invited to meet us, and arrived in due course. \* \* \* All the guests were dressed in their native costumes, with wreaths on their heads and necks, and even the servants were suitably decorated. At Hawaii, while strolling to view the place, \* \* \* we were followed by a crowd of girls all decorated with wreaths and garlands. \* \* Whenever I stopped to look at a view, one of the girls would come behind me and throw a *lei* of flowers over my head, fasten it round my neck, and then run away laughing, to a distance, to watch the



## VARIOUS INQUIRIES.

Amateur, of Baltimore, Maryland, recounts first winter's experience with greenhouse. First, the heating apparatus was not sufficient, and capacity was increased. Then the hot-water pipes were heated and the fumes of the painting material caused the plants to drop their leaves. The following inquiry is then made: Will you advise me what to do with my Callas and Hyacinth bulbs? Shall I let them go on growing, or, if not, how can I keep them for future planting? The leaves dropped from the Smilax, and then came forth new growth, but no leaves. I water about once a day as the plants want it, and also sprinkle the foliage well, and give about one hour of sweating daily, as well as a little air. The temperature is kept between 50° and 65°. Is my treatment any way correct? We are not informed what the pipes were painted with. Gas-tar has frequently been used for this purpose, but always with disastrous results. The best mixture is lamp-black and turpentine with a very little boiled oil; the evaporation from this material will not injure the plants. However, it is best to perform the operation on a mild day, and leave the ventilators open until the smell shall have passed away. The Calla, Richardia, should not be dried off until the latter part of spring, and then may be turned into the open ground. The Hyacinths can have less water after blooming, and they will gradually ripen and their leaves will wither. Green leaves will appear on the young growth of Smilax. We do not understand what is meant by sweating in this connection, but, whatever it may be, judge it to be unnecessary. Better give more air. In this case the experience to properly care for the house must be acquired by practice, and it can be. The aim should be to keep the humidity and the temperature as nearly even as possible, allowing an increase of the latter by ten or fifteen degrees during the day.

R. A. R., Blue Mound, Wis., complains of "little black bugs" on the leaves of Calla. Turn the pots on their sides and syringe them with a fine rose as forcibly as possible, and repeat the operation every day. If the white worms in your pots do not injure the plants, as apparently they do not, we should give

them no attention. If, however, you are determined to be rid of them, and the persistent use of phosphorous matches thrust into the drain-hole does not destroy them, we should immerse the pots in lime water until the soil is thoroughly soaked. Slake a half peck of lime in six or eight gallons of water, let it settle and then pour off the clear liquid for use. Hall's Honeysuckle will doubtless do well on a north porch. There is no yellow Hybrid Perpetual Rose.

In answer to A. M. S., it may be said that the Fuchsia should have a soil composed of about equal parts of good fresh loam and leaf-mold with a little sand and a little old manure. At this season the plants should be growing freely, having plenty of heat, light and moisture, and air every day. The cause of the rotting of the Geranium mentioned is because it has been kept too cool and moist. The Tuberose that bloomed last year is now worthless. The little bulbs at its base can be removed and planted out to grow, but they will not bloom until another year, or until large enough. Plants of Bouvardia can be set out in the garden border when the frosts are past, and remain until September, when they should be potted for winter blooming.

Miss J. E. K., inquires when the Agapanthus blooms, and remarks she has had one three years without its blooming. The Agapanthus requires to be of good size before blooming, but the age when it commences depends very much on its treatment. At this time, or even earlier, after its winter's rest, it should be repotted in fresh, light soil, consisting of about half old manure. As it grows supply it with water to its full capacity, and if it should fill the pot with roots early in the growing season, shift it into another a size or two larger. When growth ceases gradually withdraw the water. Leave the plant in the pot and keep it in a cool, light place, secure from frost during winter.

O. W. P., whose inquiry appeared last month, writes that the question intended to be asked was, not what is the best fertilizer, but, what is the best and most convenient fertilizer for house plants in winter when fresh soil cannot be obtained. This will depend on circumstances, and



what might be most convenient for one might not for another. Old stable manure, soot water, manure water from any animal dung, guano, prepared fertilizers which are kept for sale in almost every village, either one may be used.

Inquiry is made for the mode of using kerosene for destroying insects. A tablespoonful of oil may be mixed with a tea-cup of sour milk, and then diluted with two gallons of water. Apply the liquid with a syringe or watering can, and afterwards rinse with clear water. Another mode is to boil a quart of soft soap with two gallons of milk, and when cool add one gallon of kerosene. This mixture is used by diluting it with twenty times its bulk of water.

Specimen of plant is sent for name by Mrs. S. L. A., Atlantic City, N. J. It is *Euonymus Japonicus*. It is one of the easiest plants to cultivate in the window or greenhouse. It is an excellent house plant and, like charity, it "suffereth long and is kind." Its flowers are insignificant, and the plant is prized for its foliage, especially the variegated varieties.

S. J. S., asks what will kill the common black Squash and Pumpkin bug. Paris green applied in solution, the same as for the Potato bug, will certainly end them

#### CALADIUM—ANNUALS—DAHLIAS.

Does *Caladium esculentum* do better in partial shade? The sun scorched the leaves of mine, last summer, so they all shriveled up.

Are there any desirable annuals that will do well under the shade of trees, and what are they?

I have never been able to have any good *Dahlia* flowers; my plants grow very large and thrifty, and are loaded with buds, but they turn black and soft, and die without opening. This is my experience for several years, and in different situations. Can you tell me what the trouble is?—A. C. W., *Franklinville, N. Y.*

*Caladium esculentum* needs a full exposure to the sun. The reason the leaves scorched was a lack of water. A place should be prepared for these tubers by digging out the soil for a space of a yard in diameter, and at least two feet deep, and then filling it with a light, fresh soil, enriched by some old stable manure. Increase the water as growth proceeds, and saturate the soil at least once a day.

Some of the annuals succeed best in a slight shade. Among these may be mentioned *Clarkia*, *Leptosiphon*, *Lobelia*,

*Pansy*, *Mimulus*, *Godetia*, *Myosotis*, *Whitlavia*, *Mignonette*, *Sweet Alyssum*. But they will not flourish directly under trees; if they are where they receive some shade at mid-day, and the rest of the time have the sun, they will be suited.

It is probable that the *Dahlia* plants were raised from large tubers, and sent up a number of stems forming a large bushy head, having the buds much shaded, and protected from a free circulation of air. The crowns of the tubers should be divided and only one stem allowed to grow in a place; and in this case, if the head is dense, the branches should be tied out to let in the air, and if necessary some of the inner branches removed. By attention while growing, and pinching out superfluous shoots, the head can be formed about as may be desired.

#### VELTHEIMIA.

In December I had a bulb sent to me which was in bloom, and I was told that the name of it was *Veltheimia*. The leaves resemble those of the common red Cactus, while they grow and are shaped like those of *Tritoma uvaria*, only the color is a faint pink edged with light green. I know nothing of the treatment required after blooming. Can you give me a few suggestions?—MRS. E. S. B., *Bristol, R. I.*

The *Veltheimia* is a Cape of Good Hope bulb. After blooming, the water should be gradually withdrawn, and the bulb allowed to rest during summer. By gradually drying off the bulb it matures and hardens; the leaves wither and finally dry, and the bulb is left sound and in a condition to remain so during its dormant state. It is not necessary to repot oftener than every other year. A light soil suits it. When repotting, the old leaves can be pulled off close to the bulb and potted; from the base of these bulbs will form, thus increasing the stock.

#### CYCLAMEN PERSICUM.

Will you please inform me how *Cyclamen* bulbs should be managed? I have been trying for some time to make one grow, but the leaves dry up and fall off most as soon as they appear.—N. R., *Beaver River Corner, N. S.*

As *Cyclamen* bulbs should now be receiving but little water, and making no growth, and in this state should remain until fall, no direct reply is made to the above inquiry, but we should be pleased to have some of our correspondents who successfully raise the *Cyclamen* give their methods with this plant in detail for the benefit of all who wish to know about it.



## A GARDEN JOURNAL.

April 2. Preparing hot-bed to transplant Radish; sowed Cress in the cold-grapery.

3. Looking over and repotting a few choice plants in the greenhouse.

4. Clearing away brush and clippings in the garden.

5. Thinning out Radishes in the hot-bed where they are too thick, and transplanting them into other beds. Radishes transplant very readily, and come to perfection in a short time in a warm hot-bed.

6. Pricking out Lettuce into a cold-frame for second late. The seed was sown in boxes, in the greenhouse, on the 20th of last month. Lettuce grown in cold-frames at this season makes better heads than in the hot-bed.

7. Repotting Roses.

9. Pruning trees and shrubs.

10. Sowed seed of choice Primrose.

11. Uncovered Grape vines in cold-grapery. It has been a cold and severe winter, yet the buds look very promising. Sowed seed of Pepper in the greenhouse.

12. Sowed Celery seed in boxes in the grapery. Removed the covering from Hybrid Perpetual Roses, with which they had been protected all winter.

13. Sowing Spinach seed in the garden.

14. Sowed eight rows of Peas. The spring is so late they could not be sowed earlier; I like to get them in by the first of the month. Some sow double rows of Peas, but I think a good broad row is better. These rows are fifty feet long, and a pint of Peas is sowed in each row.

16. Commenced to syringe the vines in the cold-grapery. The weather is coming in quite warm.

17. Raking the lawn and preparing to roll it. The spring has been so backward there has been no chance to work it earlier.

18. Sowing Beets, Parsnips, Onions and other seeds that are better for being sown earlier.

19. Placing Chrysanthemums, Carnations and some Geraniums into cold-frames to harden off.

20. Finished sowing the seeds commenced on the 18th. One ounce of Carrots, Parsnips, Salsify or Onions will sow four drills fifty feet long.

21. Spading the grapery border, and borders where herbaceous plants grow.

23. Sowed Sweet Peas and Spanish Dock.

24. Potted Tuberous-rooted Begonias. Getting out manure preparatory to planting Potatoes, Cabbage and Cauliflower.

25. Manuring heavily the Rose beds on the lawn with cow manure and digging it in. Planting Azalea nudiflora in the borders.

26. Planting Purple Beech, Spanish Chestnut, and other ornamental trees, on the lawn and grounds.

27. Planting Potatoes, Cabbage and Cauliflower.

28. Planted out a bed of Azalea mollis on the lawn; also, some of the Ghent varieties of Azalea among the shrubbery. The soil where these plants were set was removed to a depth of eighteen inches, and replaced with some brought from the woods, where the Trailing Arbutus and Azalea nudiflora grow, as I am informed that the soil in which these latter grow naturally is suitable for Azalea mollis.

29. Frost last night, killing some vine shoots in the cold grapery. Vines growing in the inside border have made shoots six inches in length.

30. Planting Artichokes, and sowing Melons in cold-frames on pieces of inverted sods.

## AN EARLY BEE PLANT.

A writer in a cotemporary journal mentions *Draba verna*, or Whitlow Grass, as one of the earliest honey flowers. "It is the most diminutive plant of the Mustard family, *Cruciferae*, the first flower to delight the industrious honey bee, and his homely face, no doubt, rubs against its minute white petals with particular pleasure, as he steals from it both honey and pollen, as the earliest fruits from the first harvest. So slender is the scape with its bractless raceme that the bee has to lie on its back while working upon it, as I have often witnessed. The instant he touches a flower it yields to his weight, and the fragile scape will bend over until the bee's back rests upon the ground, and in this position he remains until each expanded flower of the raceme has been visited and enjoyed. The *Draba* delights in sandy soil, and springs up in the Corn fields after the last working, and quickly covers the ground. It is wonderful how they stand the intense cold, germinate, grow and expand flowers during freezing weather, especially as they are very juicy plants."



## LEISURE HOUR NOTES.

Persons wishing to make a perfectly in-offensive retreat, which may be attached to the house, or within it, to the great advantage of the weak or delicate, may find the following data useful towards the arrangement of their plans. They were supplied by Dr. THOMAS HAWKSLEY, of London, officially. From four to five pounds of dry earth are required to absorb and perfectly deodorize and hold all the fluid and solid excretæ of one person per day, or one hundred and eighty-six pounds for a family of six per week. If the ventilation is free, as by a flue, much less serves to keep all dry, and if the fluid can leach, so that water can drain away as well as evaporate, still less will serve. About thirty-six pounds of dry earth, or its equivalent in dry coal ashes, is required to absorb one gallon of urine. For mere deodorization, seven pounds of clay, or of garden mold or charcoal, will go as far as seventeen pounds of sandy earth. Earth is preferable in regard to the manurial value of the compost; it preserves the valuable elements in a more readily soluble condition with least oxidation of the ammonia. I have found gas-tar an excellent coating for the wall and floor of a urinal, or for tin vessels used in shops, &c. Either not enough adheres to the coating, which is impervious to water, to allow of putrefaction, or the effective deodorizing property of the tar suppresses it. If the tar is heated to drive off some of the vapor, and applied to a warm surface while warm itself, the coating will be thicker and will dry sooner. A little sulphur or sulphuric acid is sometimes added as a drier.

I walked, one evening, with a friend, to the grounds of a gardener whose little, very plain and rustic cottage was almost hidden by embowering vines, but who had in the grounds around all manner of trees and plants, "pleasant to the eye and good for food." As we returned, carrying fruits and flowers, we discussed the question, why is it so common that gardeners, who show fine taste and art in laying out and keeping charming grounds, are so commonly indifferent to architectural beauty in the houses they themselves dwell in, or to fine texture in the habiliments they wear. That they have

a sense of beauty is evident from the fine effects they produce in grouping flowers in a bed or in a bouquet, or trees and shrubs upon a lawn, or vines on a bower. They satisfy their natural hunger for what is pleasant to the eye by viewing these growths, and so care little for artificial paint and polish. And as all that they grow and value comes from the soil and dust, this soil and dust becomes familiar, and a stain of it less abhorrent to them than it is to the man who is confined to books, to paper, or to cloths.

Dr. STURTEVANT's twenty-eighth bulletin, dated January 27th, 1883, in the dead of winter, tells of observation busy in the greenhouse, while ice locks up the out-door soil, and gives evidence of progress toward the desirable end of controlling growth, so as to decidedly give it the special direction, whether toward leaves, flowers, seeds, stems, tubers or roots, that the cultivator's interest may call for. As to the question treated upon, of Potatoes generally shooting earliest and most vigorously from the cluster of buds at the extreme seed end, just as terminal buds in trees and vines generally start with stoutest impulse from the terminal bud, some variations from this appeared among the Potatoes. May not this be accounted for by accidental position? Of several tubers placed in warmth in different degrees of inclination between seed-end up and the reverse, one should expect, judging from analogous cases observable in wood growth, that an erect position would favor the earliest and strongest development of the terminal bud. What bearing or bearings this, if proved, might have upon Potato planting under different circumstances of season, covering, &c., would be a question for test.—W.

## SYRINGA AND POMEGRANATE.

Please state how to trim the Syringa, or Mock Orange, and the dwarf Pomegranate, James Vick.—H. L. D., *Buckland, O.*

The Syringa, before growth starts, can have its new shoots shortened a little, and the suckers, or root-sprouts, removed. After blooming, cut away the old flower-wood to strong shoots. The Pomegranate can have some of its small twigs thinned out in the spring, so that the head shall not be too dense, and the remaining shoots should be shortened in.

## BULBOUS AND OTHER PLANTS.

1. How must I manage *Cooperia Drummondii* and *C. pedunculata* so as to get them to bloom? I have had them for over three years, but they have never showed a flower. I treat them the same as *Sprekelia*, *Vallota*, *Hippeastrum* and other *Amaryllis*.

2. What is the proper way to manage *Montbretia Pottsii*, *Schizostylis coccinea*, and where can I get *Puschkinia scilloides*, *Tecophylæa cyanocrocus*, *Chinodoxa Lucilæ*, *Iris graminea*, and *I. cuprea*?

3. What can be the reason that my *Arabis alpina* never flowers, it covers a large piece of ground as thick moss, but never shows a flower. The same with *Campanula Carpatica*, also *Funkia ovata* and *F. alba*, (*Hemerocallis*). Furthermore, I find it difficult to grow my *Tropæolums* so as to flower; they make a large growth of leaves, and ever so many branches, but the buds never get over a quarter of an inch in diameter, after which they disappear. In the same ground grow nicely *Lilium tenuifolium*, *L. candidum*, *L. longiflorum*, *L. Martagon*, *L. croceum*, *L. Canadense* and others, *Brodiaëas*, *Camassia*, *Corydalis*, *Erianthus*, *Erythronium*, *Glaïolus*, *Iris*, and many others.—S. L. M., *Chicago, Illinois*.

1. The general method of treatment mentioned above is the proper one for *Cooperia*.

2. *Montbretia Pottsii* can be planted in the border in October or November. Set the bulbs two or three inches deep and cover with a mixture of equal parts of leaf-mold and sand, with about a third part of old cow manure; cover all with a good thick coating of litter to keep out the frost. It requires plenty of water during the growing season. Or the bulbs can be potted in the fall in fine rich mold in six-inch pots. Bring them along quite gradually, but when growth commences, do not let them lack for water. *Schizostylis coccinea*, in this part of the country, can be raised only in the greenhouse. Pot the bulbs the latter part of winter in light rich soil, and supply freely with water all through the growing and blooming season. Keep the air humid to prevent red spider. Probably the surest way to get the bulbs inquired for is to give an order for them at once, or very soon, to some dealer who imports Holland bulbs, and all, or most of them, can be thus procured. In the same way a great variety of bulbs can be obtained that are not ordinarily kept in stock in this country.

3. Without knowing more about the particular conditions attending the plants complained of as not blooming it is difficult or impossible to give any very definite opinion; but it would appear as if one general cause operated adversely to their blooming, and that cause too rich a

soil. We shall advise, for trial, that the plants be divided and replanted in soil made poor by addition of a large proportion of sand dug into it.

## FURNISHING A CONSERVATORY.

I find, in reading your MAGAZINE, many inquiries in regard to plants, the answers to which are useful to many beside the inquirers, and as I am very much interested just now in the internal arrangement of a small conservatory, I venture to ask for some hints in regard to it from those who have better ideas than myself, as those I have seen were arranged with just rows of shelves, one above another. And while I want an arrangement whereby I can have every inch of glass available for plants, it seems to me there might be some prettier way than that above mentioned. My conservatory will be six feet by ten feet, with glass from ceiling to floor on three sides. I shall be very thankful if you will kindly suggest something that will be helpful in this matter.—*Minneapolis, Minn.*

We are unable to suggest any method of furnishing the conservatory that will better enable all the glass to be serviceable than by shelving. Perhaps some of our readers know of something better, and will supply such information. A judicious use of brackets and hanging baskets in connection with shelves will enable one to use every inch of room. If the expense would not be an objection, wire shelves could be used instead of wooden ones, and the effect would be much lighter.

## ERIANTHUS AND EULALIA.

I purchased, nearly three years since, a root of *Erianthus Ravennæ*. It grows, sends up a few blades every year, but has not bloomed; likewise, a *Eulalia Japonica*, which seems more vigorous than the *E. Ravennæ*, but has given no bloom. I have put dressing about the roots in the fall, and watered them in summer when unusually dry, as was the case last season. They are in a dry soil which I have enriched with dressing from the barn lot. Will you, or some one give me instructions, through your MAGAZINE, how to treat them for bloom.—*Mrs. L. C. W., Silverton, Oregon.*

It is probable that these plants will bloom the coming season. They require to be strong before blooming, though the *Eulalia* usually blooms the second year after transplanting.

## ACHANIA MALVAVISCUS.

I have a plant of *Achania* three feet high. It drops its leaves every winter. What does it need, and how should it be watered?—*L. F., Fayette, Pa.*

The culture of this plant is very simple. A temperature of 45° to 60° is all that is needed in winter, and but a small supply of water. Over watering, or poor drainage, may have caused the leaves to drop.



**GERANIUMS—ENGLISH IVY.**

I have been unsuccessful with my Lady Washington and Rose Geraniums as house plants. What can I do for them, and how can I keep them free from those little green lice? The leaves of my Silver-leaved Geranium are imperfect and curly; why is it?

What shall I do with my English Ivy to make it grow, and how shall I keep the scale off it?—H. McC.

The plants inquired about are of the easiest cultivation. They will all thrive in a soil composed of equal parts of leaf-mold, sand and old manure, to which is added an equal bulk of fresh loam taken just under an old sod, and all mixed together. Supply water moderately during winter, as they are not then making much growth, and give them a full exposure to the light, and admit air to them frequently when not too cold. When growing freely, give water as required. Ordinary house temperature, or rather less, is proper. The green fly can be destroyed by fumigating with tobacco, or by sprinkling tobacco dust on the foliage.

The English Ivy will commence to grow now that a warmer season approaches. The scale can be brushed off with a brush and soap and water; or a little alcohol diluted one-half with water can be touched to each insect with the point of a camel-hair brush, and this will kill it, or touching it in the same manner with kerosene oil will produce the same effect, or use kerosene oil in the manner described on page 119 of this issue.

**CHINESE YAM--WISTARIA-YUCCA.**

Will the Chinese Wistaria and Chinese Yam stand the winter when the temperature is 18° to 20° below zero? What kind of soil do they thrive best in? How long does it take to bring a Yucca plant into bloom from seed?—J. C. L.

The Chinese Wistaria will stand the degree of cold mentioned, though some of the tips of its shoots may be killed back it will not be materially injured. The tubers of the Chinese Yam, *Discorea*, are quite hardy. Under favorable conditions *Yucca filamentosa* will bloom the third year from seed, but often it takes longer.

**PLANT NOTES.**—I find that dusting plants with fine Tobacco dust effectually destroys plant lice, and will completely rid a plant of them. I have a Sweet Potato plant that climbs, following a string as readily as any climbing plant, and is very pretty.—C. W. B., *Boston, Mass.*

**INQUIRY AND NOTES.**

I have two *Amaryllis*, *A. longiflora alba* and *A. rosea*. The white variety bloomed last June. Can they be forced into bloom at any other season than summer, or not?

I think the March number of your MAGAZINE the best I have ever had, probably because I am interested in more of the articles. I intend to have some window boxes this summer, and that article was just what I wanted. I was much interested, also, in the article on the propagation of plants. In a bed of thirty Tea Roses I had, last summer, the best bloomers were Gen. de Tartas, Homer, Safrano, Sombreuil and Mad. Falcot. Homer and Sombreuil were especially good in the late summer and autumn. The Polyantha Roses, Mignonette and Madame Cecile Brunner, gave an abundance of bloom, and were very satisfactory.—*Muscatine, Iowa.*

Some one who has had the proper experience will please answer, in a future number, the question asked above.

**BOUVARDIA, ALFRED NEUNER.**

Lovers of pure white flowers of beautiful form, who have never seen the blooms of this variety of *Bouvardia*, should by all means obtain it. Among my house plants, last autumn, no other attracted so much attention and admiration. The large clusters of double, waxy-looking blooms were indeed beautiful, much more beautiful than any picture can represent them, and they remained a long time in perfection on the plant.

This winter has been unusually severe at the south, and most of the plants in pits have been frozen; but I am glad to say that my favorite *Bouvardia* has been preserved, and is now making new leaves.—H., *White Plains, Ga.*

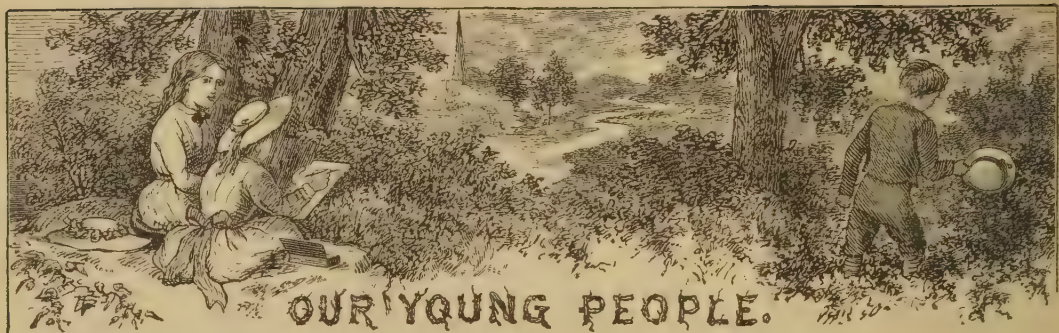
**VINE MILDEW AND ROT.**

Some of the vine-growers about Keuka lake use lime and sulphur in solution to syringe on vines affected with mildew. Six pounds of quicklime and three pounds of sulphur are placed in a tub, and boiling water poured over them. When the lime has slaked, the contents are poured into a hundred gallons of water, stirred well, and then allowed to settle. The liquid is applied on bright days.

**SMILAX BLOOMING**

Last summer, I had a plant of *Smilax* on my porch, and it grew ten feet high. I moved it to an east window, and the first of December it began to bloom. It was covered with pretty little white flowers that filled the room with a spicy fragrance. Is it common for *Smilax* to bloom?—A. A., *Lynnville, Ill.*

The *Smilax*, when well grown, always blooms at the close of the season.



## OUR YOUNG PEOPLE.

### THE BLUE BIRD.

Listen a moment, I pray you!  
 What was that sound I heard?  
 Wind in the budding branches,  
 The ripple of brooks, or a bird?  
 Hear it again, above us,  
 And see, a flutter of wings!  
 The Blue bird knows it is April,  
 And soars to the sun, and sings.

Never the song of the Robin  
 Could make my heart so glad;  
 When I hear the Blue bird singing,  
 In spring, I forget to be sad.  
 Never was sweeter music—  
 Sunshine turned into a song,  
 To set us dreaming of summer,  
 When the days and the dreams are long.

Winged lute, that we call a Blue bird,  
 You blend in a silver strain  
 The sound of the laughing waters,  
 The patter of spring's sweet rain,  
 The voice of the winds, the sunshine,  
 And fragrance of blossoming things.  
 Ah, you are a poem of April,  
 That God has dowered with wings.

—EBEN E. REXFORD.

### ASKING QUESTIONS.

The morning recitations in the arbor, under the China tree, were just ended, and the "sea clouds" which had kept the air cool and pleasant were dispersing, about ten o'clock, as usual, without rain, Miss Morton observing which, remarked to her recent pupils that when the skies in Vermont looked as theirs had all the morning there was generally rain.

"And what makes the difference?" inquired Claude.

"I can't tell, unless it's because these are not true rain clouds. They are probably formed by the sea moisture in the atmosphere having been condensed by the cool night air and sent adrift by southerly breezes and driven on past us, or dispersed by the sun's heat. We must notice, and learn how it is if we can. At any rate, it's a delightful arrangement. Don't you know how early your papa

gets up, and how much he has done before ten o'clock? while those of African blood can work all day, only because it is in their nature to endure heat. And now I have a request to make of you, children, and would like you to be as patient and nice about it as possible."

Then Claude looked at Annette, and she looked at Grace, all remaining silent a moment, until Gracie said, "We'll be patient, Auntie," the others assenting quickly, sorry they had let her get the start of them.

"Well, then, when your mamma and I have had our afternoon rest, I shall want you to be on the gallery and sit very still, and listen while I tell you that story of a bit of my girlhood experience in Vermont, which slipped out of my talk so curiously the other day."

"Ho! if that's all we're to be patient about," said Claude, "I think we'll stand it," and then he set up a cheer and a shout for Aunt Helen, while the girls fell to laughing, interspersed with, "O, my's" and "O, dear's," and "Isn't she funny?" and then rushed into whispering, into which Claude joined, the result of which was that Aunt Helen was invited to walk around to the other side of the arbor to see their "little" giant. He had been built up of stones, and was just completed to the top of his ugly head, and now stood awaiting the cave that was to be formed around him from the heap of pretty colored stones that had been collected for the purpose. Claude had chanced to find a real "paint stone," having the usual almond-shaped hollow inside filled with the red powder always found in them, and had painted the giant's features in bloody-looking outlines fearful to behold. They were surrounded by flowing grey locks of hair, and beard made of hanging moss.



When Aunt Helen had given the gory-eyed monster one searching stare, of course, she fled, shrieking, to the house in a frightful state of alarm, to the great surprise of the exhibitors, who then went off into paroxysms of laughter at the sudden panic of the only spectator at their "show."

In the afternoon, Grace knew to the minute when her mamma and Aunt Helen were seated in their cool, cane rockers on the breezy gallery. A little audience of three was soon seated near, in listening attitude and with expectant faces.

"I was telling you, the other day," began Miss Morton, "about gathering wild Strawberries when a young girl, near my Vermont home. Well, one evening, a school friend and I, with small baskets laden with berries, were returning home across lots in a direction leading through a long hollow, directly back of my home. We dallied on our way, pulling the Brakes and shaping them into fans, plucking the Dandelion puffs and blowing them into each other's faces, covering our berries with the velvety leaves of the Mullein, trying to fill an Acorn shell with milk from the Milkweed, fixing in memory where the largest patches of Dewberry vines were, gathering bits of grey Lichens, lingering near the Cicuta, as beautiful as it is poisonous, and finally descended the slope that led into the hollow. To the left of us was a clumpy marsh, which was always attractive, and soon we were laden with a parcel of Sweet Flag and rushes to take home.

"At the other end of the hollow was the decaying frame and part of the roof of an old distillery. The low sunbeams shot their yellow rays through the old hulk and set it all aglow. Of course, we must go and take a look through it, as a regular gipsy mood had seized us. So, depositing our burdens until our return, we followed a little stream that came from a spring in our back yard and slipped its way through the grass directly toward the skeleton building, and hurrying through it, passed out on the other side. Fragrant Spearmint and Peppermint grew along its edges, of which we gathered and ate as we went. Reaching the old frame, we found a perfect jungle of Celandine in blossom."

"Aunt Helen," interrupted Claude, "is it any use to ask questions about those

growing things, unless you could show them to us?"

"Not much," she replied. Then Annette asked what a distillery is for, which having been explained, she seemed quite shocked; while Gracie wished very solemnly that all of them would fall to pieces, so there could be no more drunkards. Then Miss Morton told them about the great coil of metal tube which winds around spirally, one ring above another, in circles as large as a barrel, and which distils, or separates, the spirits and watery parts from each other. She said she had so often read in her school reader that dreadful description of "The Worm of the Still," that she used to look at the real thing itself, there in the center of that open building, with shivering awe whenever she passed it alone.

"But look!" said she, "there is our Mocking bird again, swinging on his favorite limb. He has become so accustomed to seeing us here that he gives us a medley of music each day."

And sure enough, he cocked his head to one side and then to the other, peering sharply to discover if an enemy were near, and then set up a perfect storm of literal variations, comprising the notes of different birds of the neighborhood, including those of the Whippoorwill, and finally imitated Claude's whistling so perfectly that each one recognized it on the instant. When he had finished, he bobbed his head a time or two, as much as to say, "Wasn't that well done?" and soared away.

Of course, Claude was delighted with the honor paid him, and Annette said:

"I suppose Claude is so set up that he will be whistling all the time now;" and he retorted, curtly, "I'll try to stop long enough to give the bird a chance." Then his mamma hastened to say, "Where has the rest of our story gone to?"

"Sure enough," said Miss Morton, "Where was I?"

"You had just got to the distillery," said Annette. "You had just reached the jungle," said Claude, "and that means wild animals;" while Gracie was whispering to her mamma that she was sure something just awful was going to happen in that stillery.

"My jungle, Claude, was a very innocent affair. The plant is delicate, and in moist, shady places grows rank and tall.



The shape of its yellow blossoms gives it the name of Lady's-Slipper. The under sides of the green leaves have the quality of looking like molten silver when under water. Amy said, 'Let's make fairy silver,' and proceeded to pluck long stems of leaves. Approaching to get mine, I saw two or three wee water snakes glide farther into the thicket, and so I quickly retreated. Knowing they were harmless, and that Amy was very timid, I said nothing, but was seized with a sudden thought that to hide from her would be great fun, and would divert her from returning to the thicket. Seeing no hiding place but the old wooden tanks, I glanced from one to another, only to find them either too decayed or too low to screen me, except one near the coil of pipe, which seemed to stand on a brick foundation. I did not realize that its true bottom was down near the ground, and that the brick work was built up around its sides. Nor did I notice that it stood under the edge of the roof which had sunken, trough-fashion, and thus it had received water from every rain. Neither did I know that on the opposite side was a hole one foot above the bottom of the tank, where a steam pipe had once entered, and that the brick work at that point had been water soaked until it had fallen away and left the hole exposed. No, I knew nothing, only that I was going to hide from Amy, and catching hold of an upper ring of the coil, I sprang up, stepped a little higher, and, reaching to the edge of the tank, hastily tilted over inside, expecting to touch bottom on a line with the brick work outside, and hence I dropped like lead into a foot of water. That instant I knew I was standing amidst a mass of writhing serpents. They struggled to get from beneath my feet, while their extremities flapped around my ankles. If I changed my footing it was only to step on fresh ones. In vain I clawed the smooth sides of the tank to raise myself above them. I could only stand still, raising heels and then toes to let them slide from under my feet, while screaming continually for help. The tumult of water and reptiles continued, and a horrible stench filled my nostrils. No victim of delirium tremens ever imagined such snake tortures as I really endured there, close by the 'worm of the still.' A cold spasm of horror

seized me from head to feet, and I became silent and thought I was going to die. I could hear Amy screaming outside the building, that snakes were coming out of a hole in the big tank, and for me to come quickly, for she was going. At the prospect of being left, I screamed back that I was in the tank with the snakes, and could not get out. One piercing shriek rent the air and she fled toward the house.

"But, children, your papa had found and silyly secured our berries, expecting to have great fun when we came to look for them, and hence was near enough to hear Amy's scream of terror, and to see that she was alone. He leaped the fence just as she dropped in a limp heap beside him, gasping out, 'In the big tank.' Very soon after he was drawing me from my dreadful prison, more dead than alive, and while carrying me to the house was saying, 'They were nothing but water snakes, and it seems they have made that a nesting place. I saw the hole so crowded with knots of them that they hindered each other's escape, they were more scared than you were. I am going right back to stop up the hole and kill them.' The last remark was comforting; but of the previous one I thought myself the best judge."

At the close of the story all decided that Aunt Helen had been a regular heroine; but she said that when large girls act like mad-caps they may expect to get into trouble. Claude and Annette had many questions to ask, in relation snakes, both real and imaginary ones, and when the talk was ended Claude declared that he should be a temperance man as long as he lived. "Because," said Gracie, "you don't want snakes in your boots, do you?"—AUNT MARJORIE.

#### FLOWERS AT THE SCHOOLS.

Many will be pleased to learn that we have been receiving very gratifying reports all through the winter in regard to the work of improving and beautifying school grounds. In most cases where attempts have been made to rear flowering plants in the school yards, they have been successful, and a much larger number have applied for seeds for this spring's planting. The good work is confined to no particular section, we have reached the whole country, and made a beginning.



Sweet Violets

There once was a garden  
Bedecked with gay flowers,  
Each tinted by sunbeams,  
And kissed by the showers;  
And there lived a blossom,  
Royal purple its hue,  
Hid away 'neath its leaves  
From all curious view.

T was more lowly than all,  
Yet its fragrance so rare,  
That its presence was known  
From the sweet, perfumed air  
Which it lavishly shed,  
With a bounteous grace,  
Thus to many a joy,  
Though so lowly its place.

It is the same with a life,  
Humble though it may be,  
With few to give courage,  
Perhaps fewer to see  
How it struggles, and strives  
To be perfect, and true,  
That its light may shine forth,  
Only giving to view  
The best, and the truest,  
Its influence can give,  
That when home-ward 't is gone,  
Only sweetness will live.  
Then beyond there's a crown  
That will surely be given,  
For the life lived for Christ  
The reward will be heaven

MEW Hittmore.





### PRIZE ESSAYS.

Besides the decisions announced in the previous issues of this year, the following named persons have been adjudged successful competitors in writing upon the subjects stated respectively in connection therewith, and entitled to the prizes offered:

Mrs. C. H. ROOT, Ripon, Wisconsin; The Cultivation of Celery.

J. W. LANG, Bowdoinham, Maine; How can Apples be profitably raised.

S. S. CRISSEY, Fredonia, New York; Planting and Management of Grape Vines in the family garden.

JOHN F. DAYTON, Waukon, Iowa; The Cultivation of the Strawberry for market.

WM. H. WADDINGTON, Toronto, Ontario; The Construction, Planting and Management of a cold-Grapery.

CHARLES EVERDING, Branford, Connecticut; The Construction, Heating and Management of a small Conservatory.

ROBERT J. FLEMING, Greece, New York; What Root crops can be raised with profit for feeding Cattle, and how?

W. H. WADDINGTON, our able correspondent, whose name appears in this list, has also taken two prizes for essays published in January; and the present award to S. S. CRISSEY is the second one to him, his first essay, that on "the Cultivation of the Raspberry for Market," having been published in March.

The prize offered for an essay on "the Field Cultivation of Onions," was awarded to W. ABELL, of Linesville, Pa., and the essay was published in our February number. The prize offered on the subject of Irrigation has not been awarded. A number of essays have been offered for it, and these have been submitted to competent judges, who present the opinion that none of them offer sufficient facts upon which to base the conclusion arrived at in most of them, that irrigation is of "particular value in that part of the country east of the Mississippi river;" nor, if that conclusion be admitted, are they sufficiently comprehensive in regard to the methods to be employed to make the practice generally available. It is more than probable that these defects are due to an absolute lack of facts on this subject, and therefore positively indicate the necessity of careful experiments to show what value irrigation might ordinarily have for garden and small fruit crops, and how it might be generally practiced. But the essays are not without interest, and with the consent of the writers, already received, we shall at some future time make extracts of portions of them, which will at least prove suggestive, and may be of benefit to some. One writer on this subject maintains that in the area of country specified artificial irrigation is of no practical value, and his position he well fortifies by indicating methods of cultivation in which it would be unnecessary. This essay, or at least the main portions of it, will also be laid before our readers.

In regard to all of these essays we are pleased to say, they contain practical ideas that the authors themselves have proved. They are not the productions of mere theorists or writers, but work-day gardeners and farmers, and as such our readers can reduce them to practice with full confidence of successful issue. It must, however, be borne in mind that

no one person can have put in practice all the best ideas in the culture of any particular crop, consequently we have found good points in each of the essays presented, and in those that have failed to secure prizes there are many practices mentioned that are of superior value, and some of which fail to appear in the prize essays. In time, we hope to make selections from all, and present the full discussions of all the subjects before our readers.

All the persons who have acted as judges on these essays will please accept our warmest thanks for the careful and discriminating manner in which they have performed their voluntary tasks.

**A MANUAL OF GEOLOGY.**—The *New Text Book of Geology*, by JAMES D. DANA, LL.D., lately issued by IVISON, BLAKEMAN, TAYLOR & Co., of New York, is written in the clearest and simplest style, and admirably arranged, presenting its subjects in the best possible lights, and in a manner to awaken the keenest interest of the reader or student. Every scientific term used is explained and illustrated, while at the same time the general interest is maintained. Although this book is prepared for schools and academies, it could not be more completely adapted to the wants of the general reader. Why has our globe the peculiar features it now presents? What causes have conspired to produce them? How long have the plants and animals that now inhabit the earth lived upon it? What may be known about other and strange kinds of plants and animals that lived before those now in existence? These are a few of many interesting questions that this science answers satisfactorily, and in this pleasantly written volume are treated in a simple and most attractive manner. It is a book for everybody, and should be found in the family collection, and in the village and school libraries, as well as more specially in the hands of students. Over four hundred pages, beautifully printed, and illustrated with numerous fine engravings, handsomely bound, for \$1.50.

**GOOD CHEER.**—The March number of *Good Cheer* was as varied and interesting as any of the former issues, and it would be difficult to say more than this in its praise. Every mail brings to us many compliments for it from our subscribers, and everybody is more than satisfied in getting our *MAGAZINE* and *Good Cheer* for a year for \$1.25, our regular subscription price to the *MAGAZINE* alone. Friends, please mention this offer of ours to your neighbors when the opportunity presents itself, thus conferring a favor on both us and them.

**THE MASSACHUSETTS HORTICULTURAL SOCIETY.**—Transactions of the above society for the year 1883, part 1, has been duly received, and as usual is full of valuable horticultural matter, and shows the old pioneer society of the country to be in full vigor, as do also the weekly reports of the meetings held during the past winter.

**A NEW ARITHMETIC.**—A little manual of 200 pages, by JAY F. LANING; price 25 cents. It is not intended for elementary pupils, and is good only in the hands of a skillful teacher for advanced pupils, furnishing a great variety of problems for practice. Many of its short methods are valuable to those much employed with figures.

**HANDY ATLAS OF THE WORLD.**—This contains a comprehensive set of good maps, showing the latest geographical divisions of all the countries in the world. Also, a map of North America, illustrating the United States railway time. Published by IVISON, BLAKEMAN, TAYLOR & Co., New York. Price 50 cents.